

Fig. 1

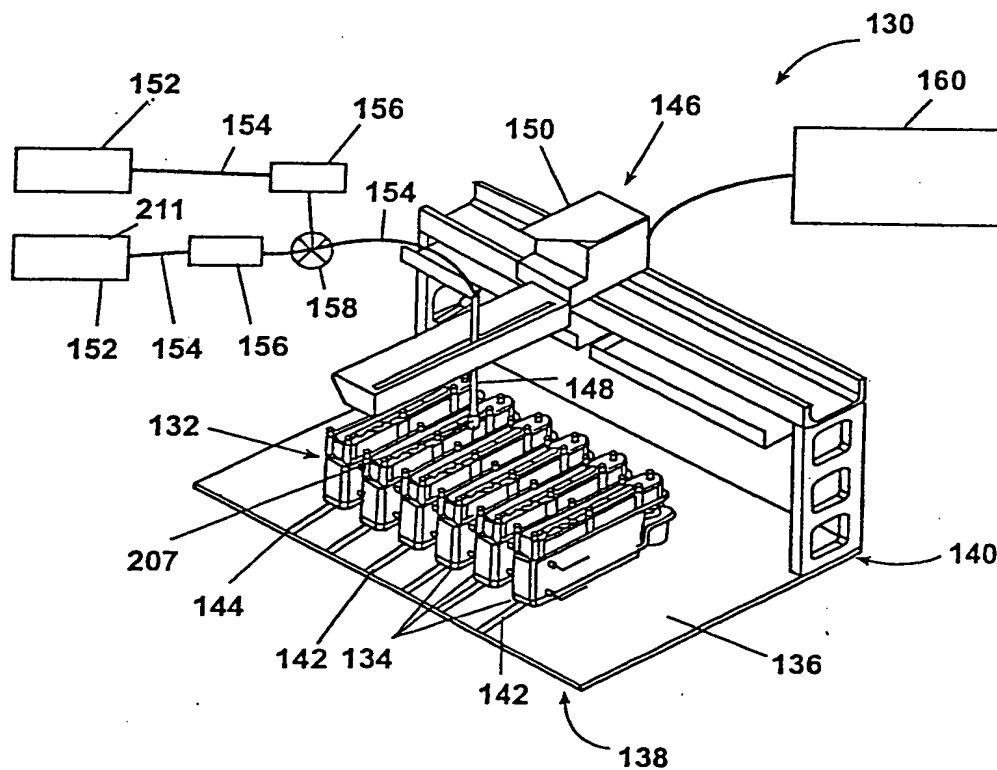
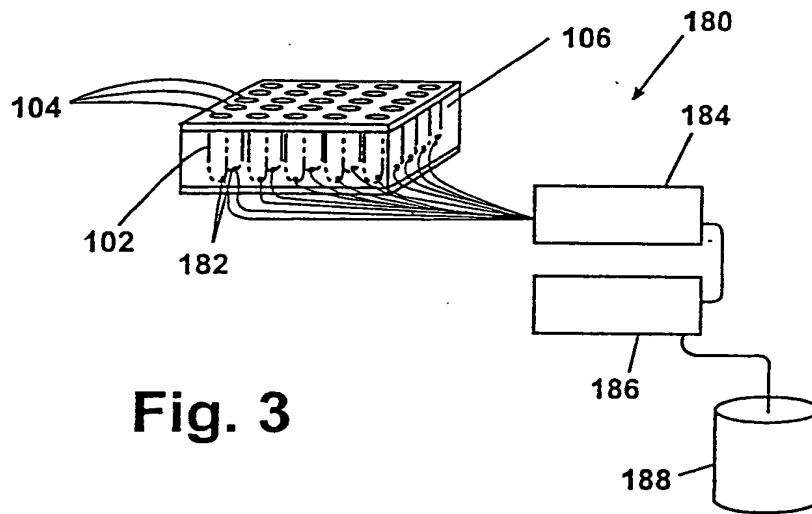
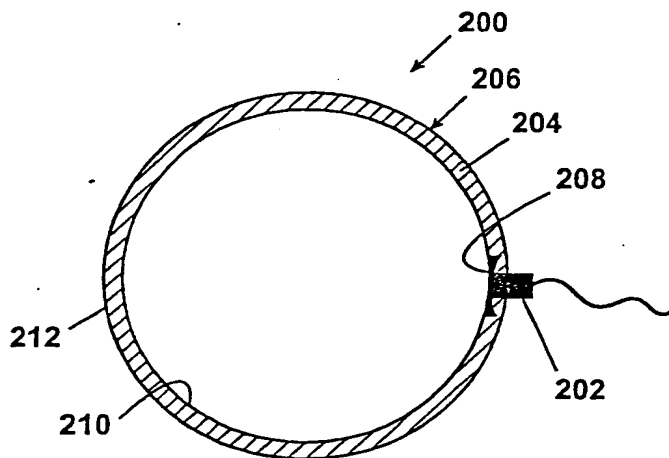


Fig. 2



**Fig. 3**



**Fig. 4**

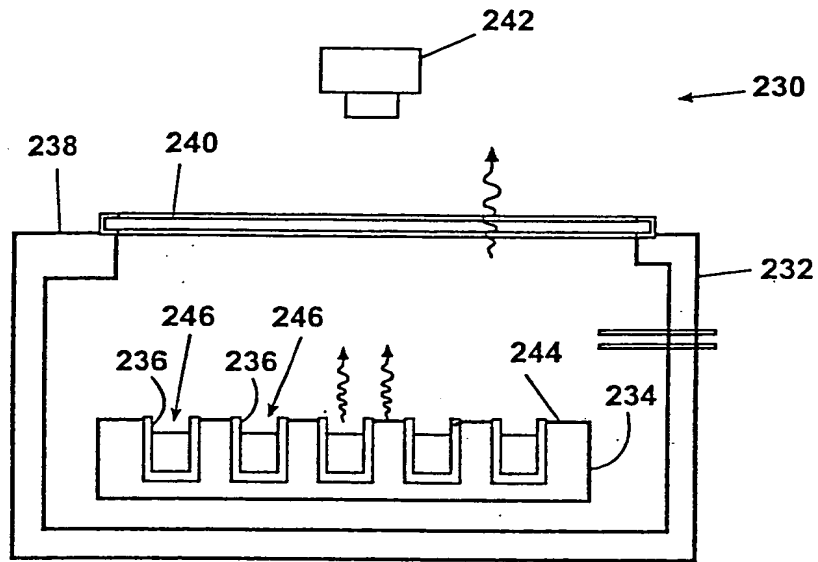


Fig. 5

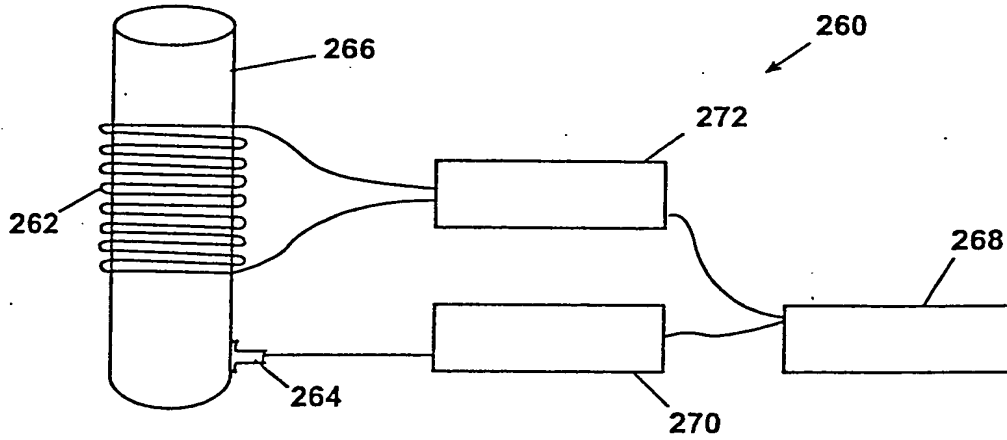


Fig. 6

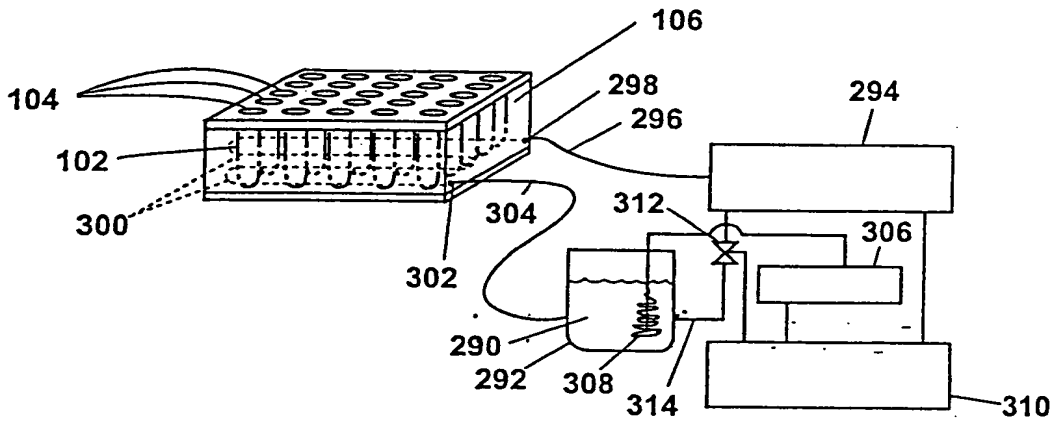


Fig. 7

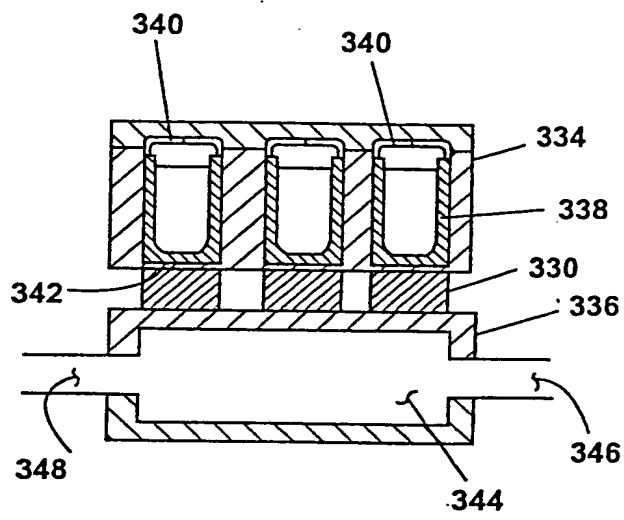


Fig. 8

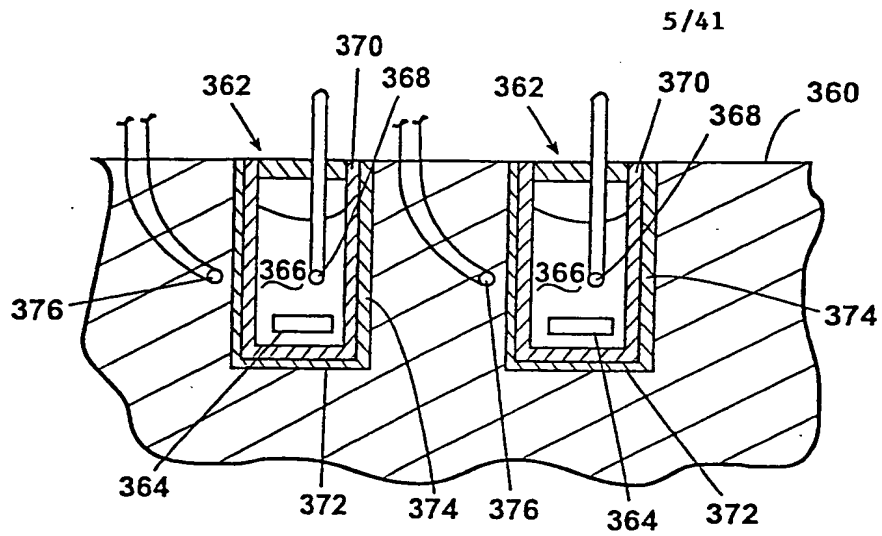


Fig. 9

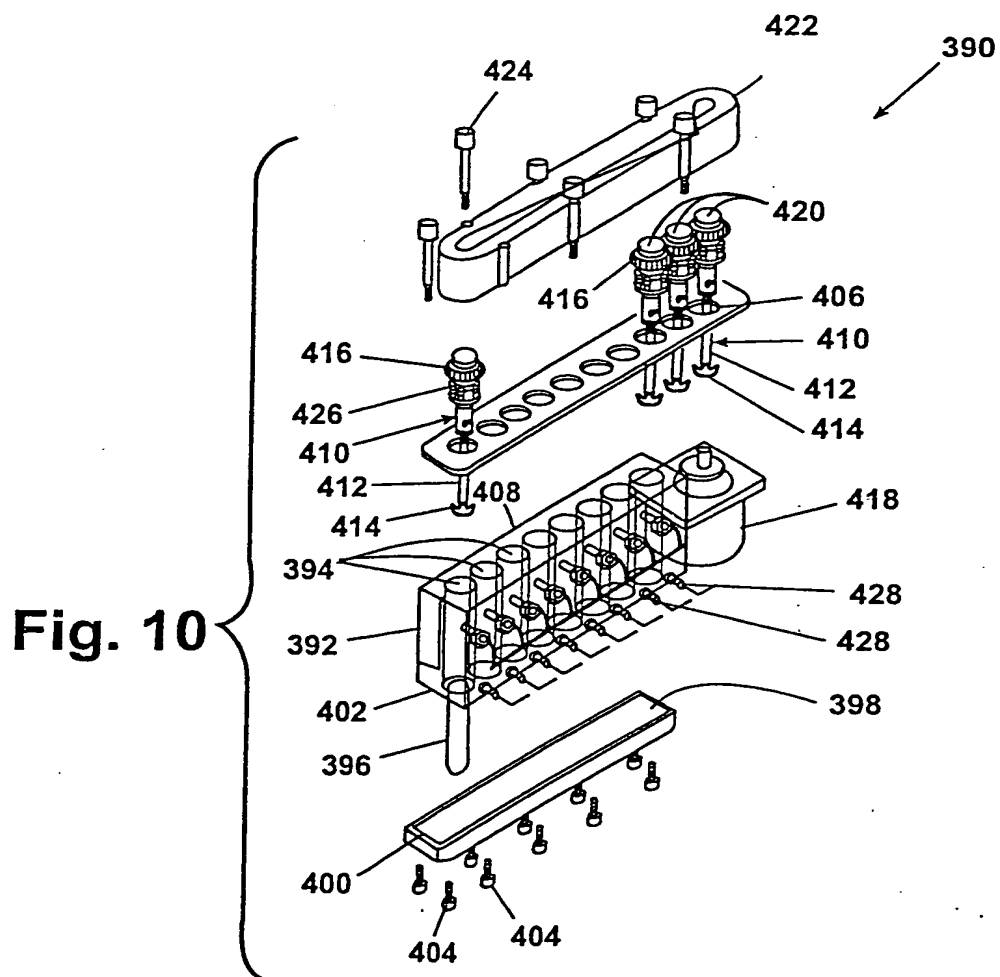


Fig. 10

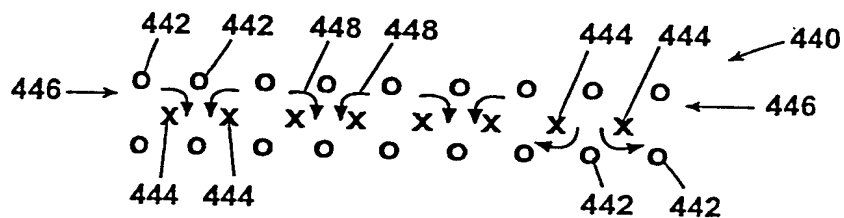


Fig. 11

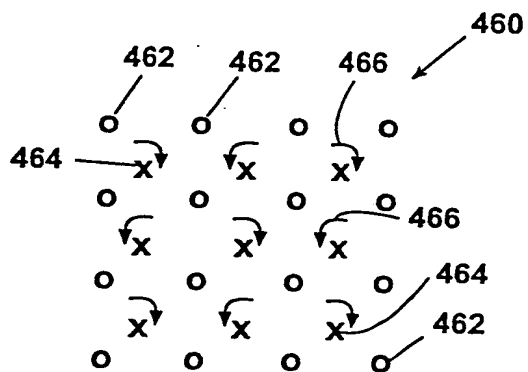


Fig. 12

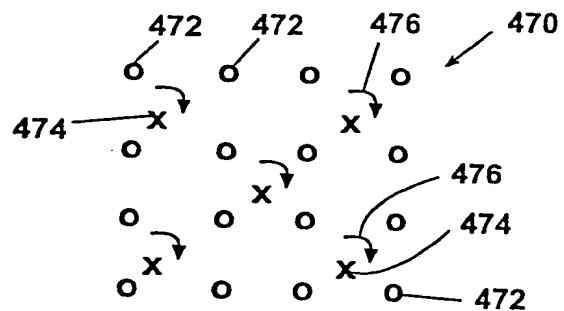


Fig. 13

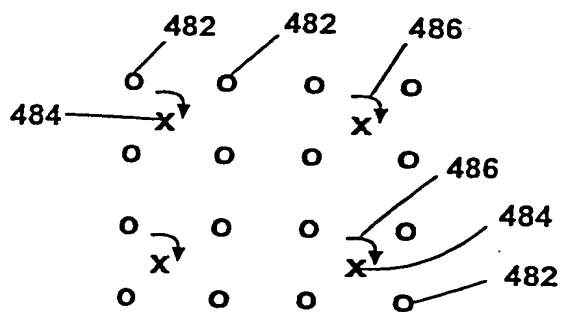
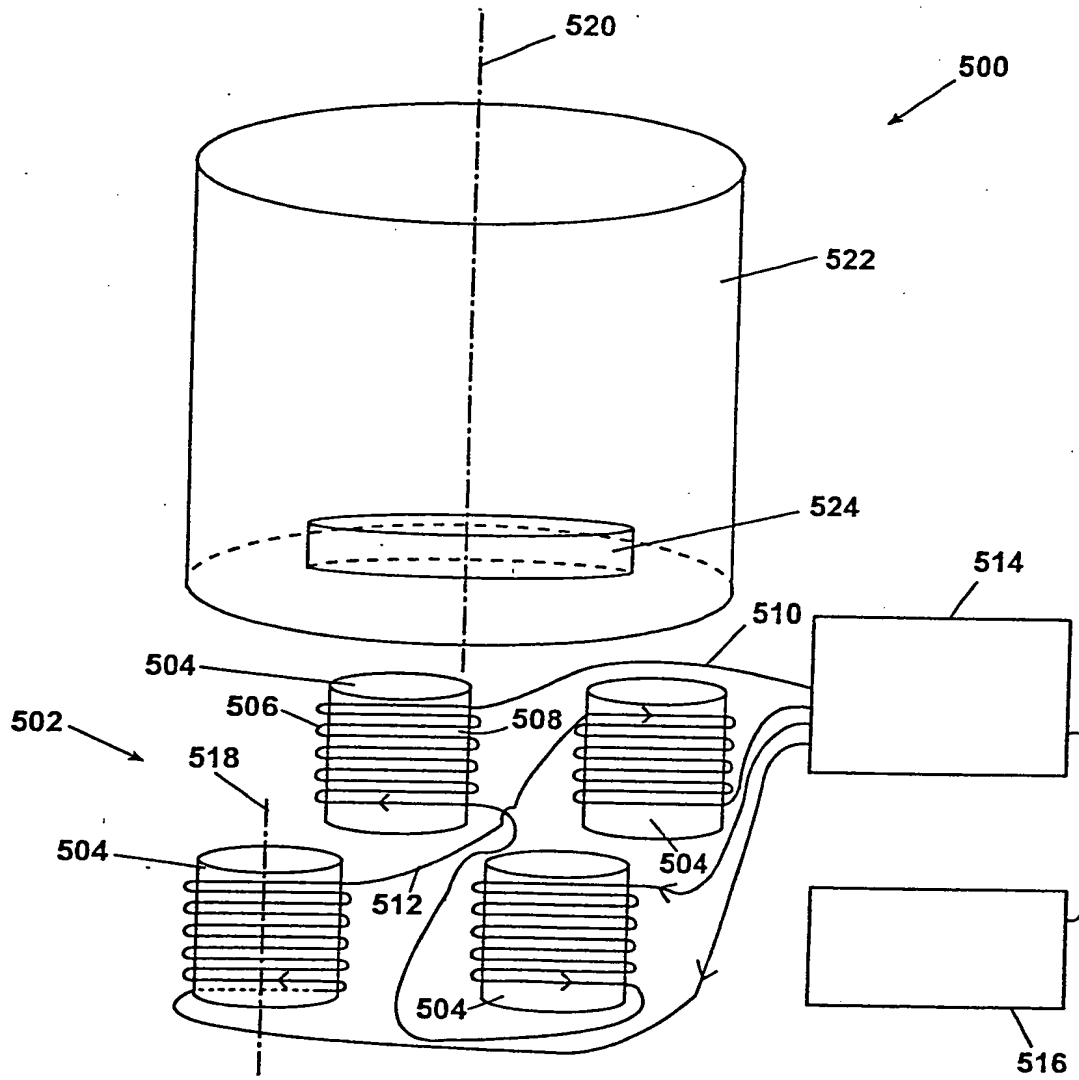


Fig. 14

**Fig. 15**

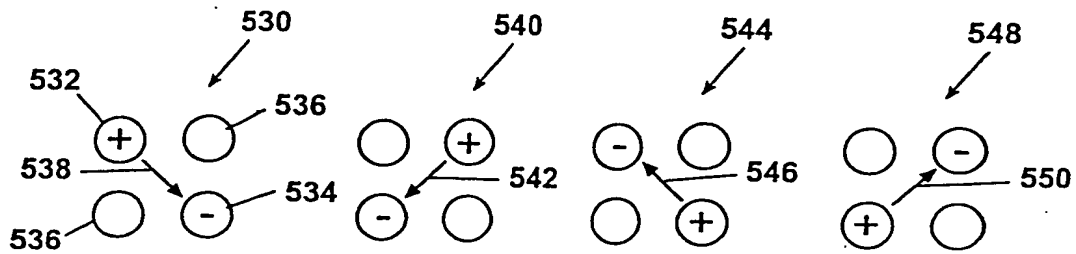


Fig. 16

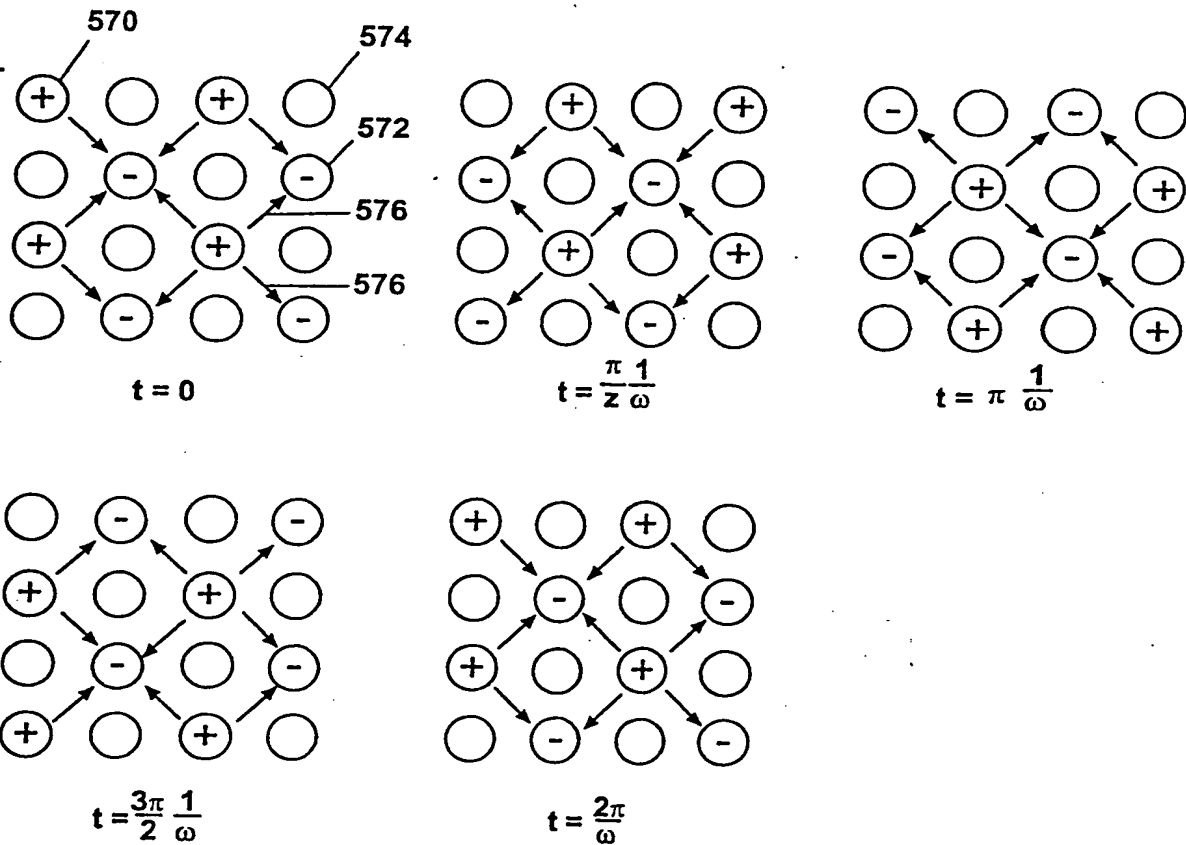


Fig. 17



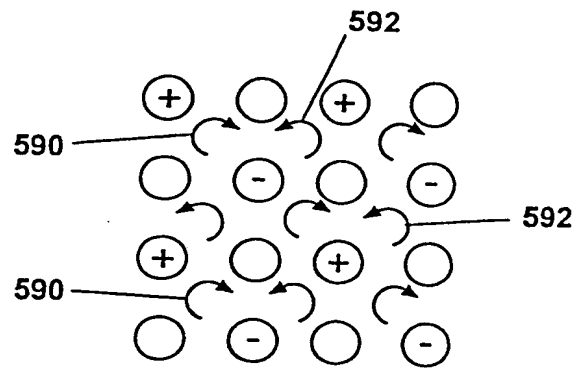


Fig. 18

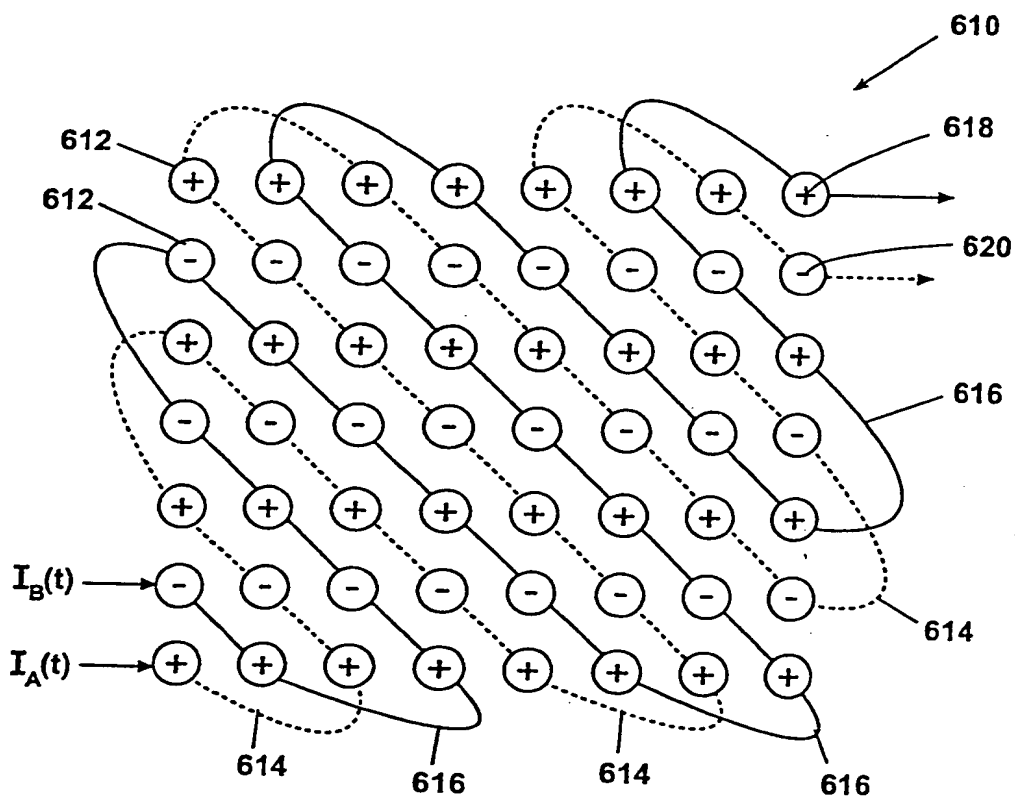


Fig. 19

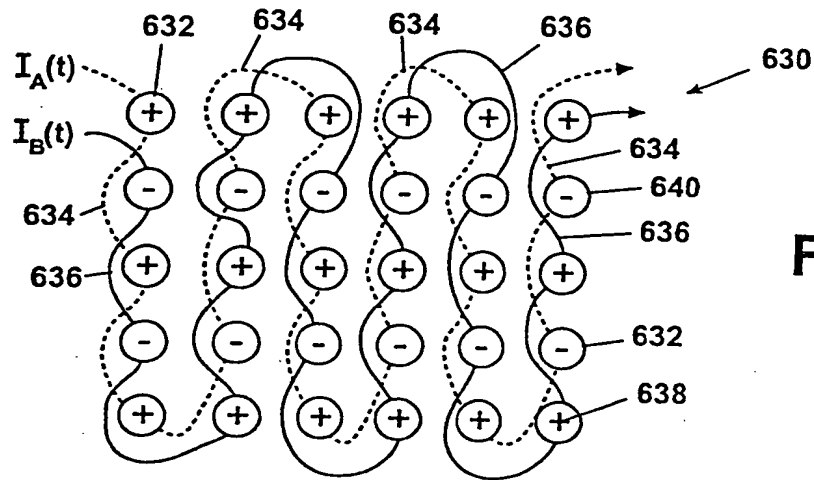


Fig. 20

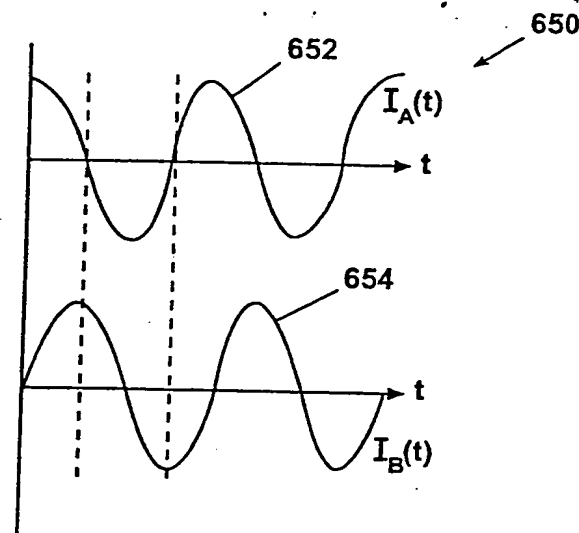


Fig. 21

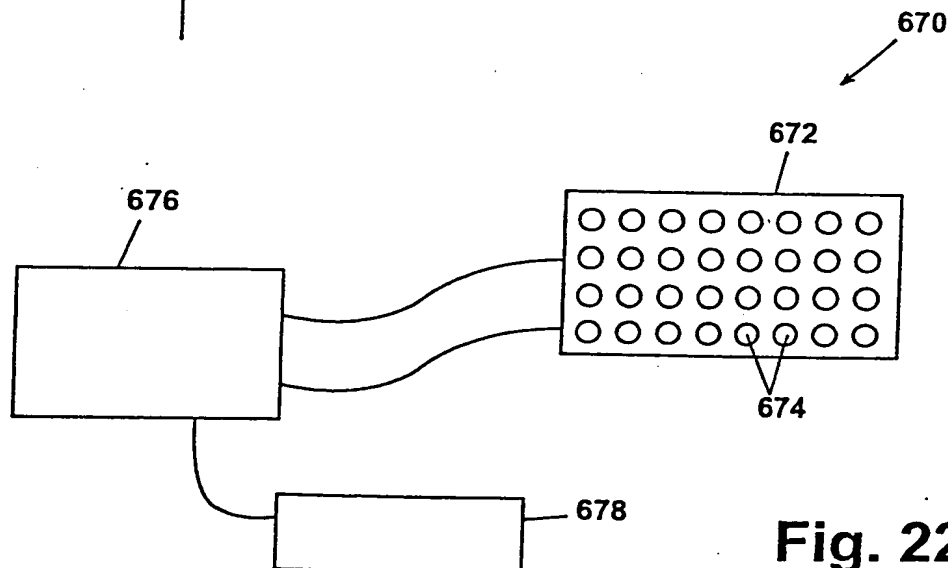


Fig. 22

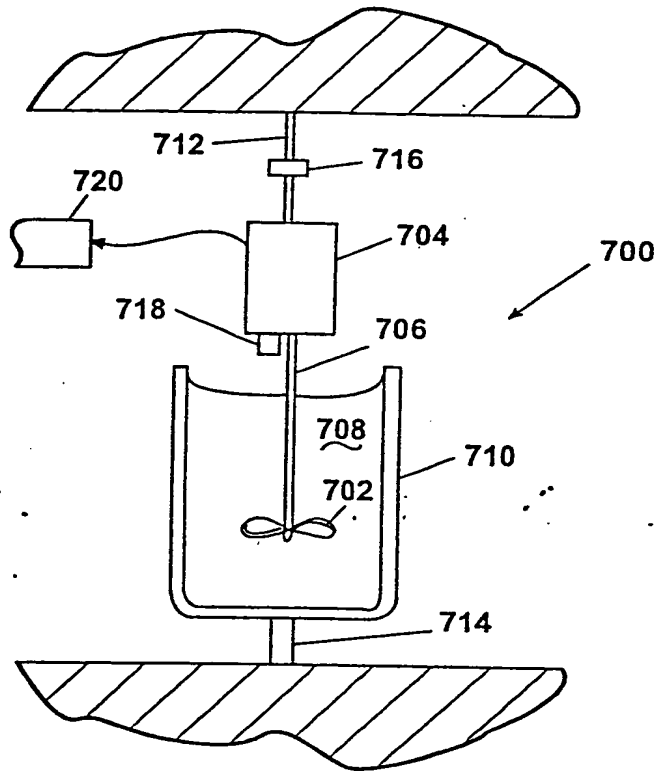


Fig. 23

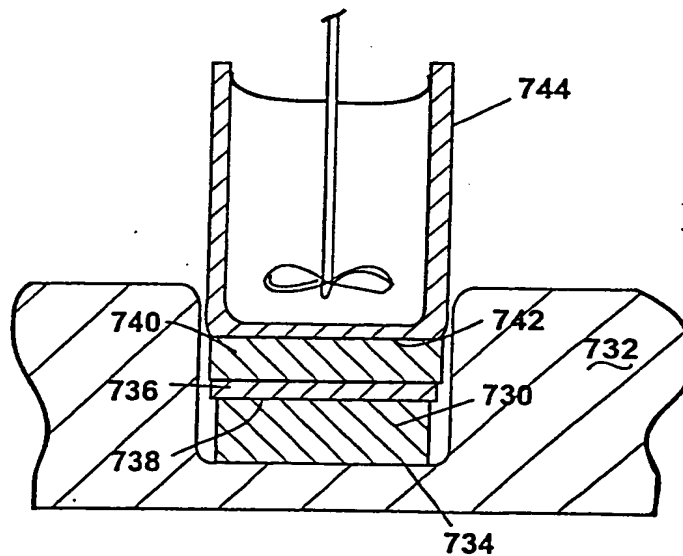
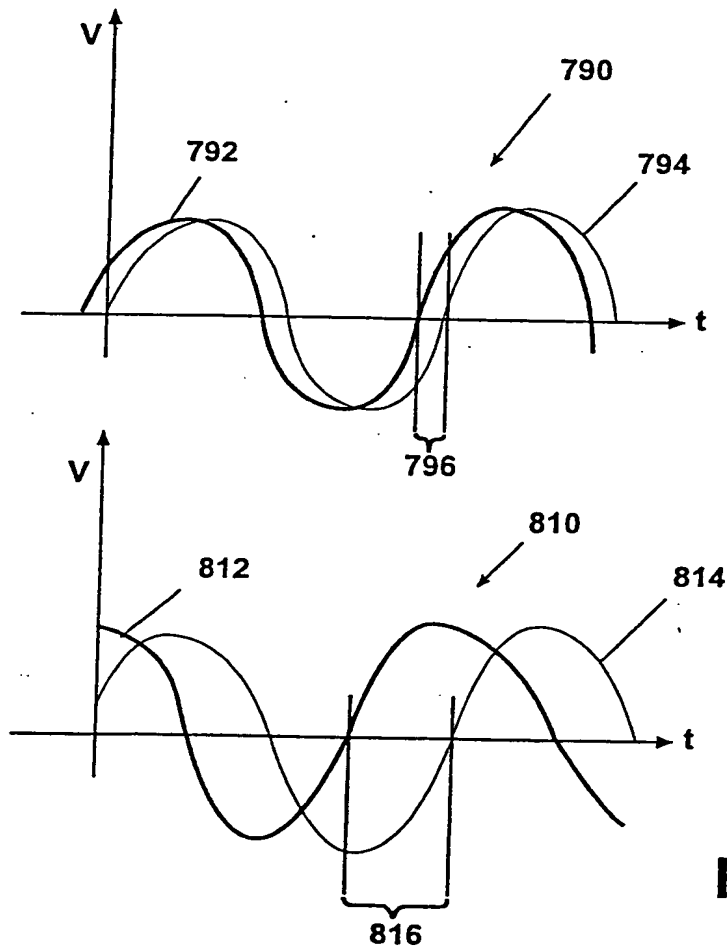
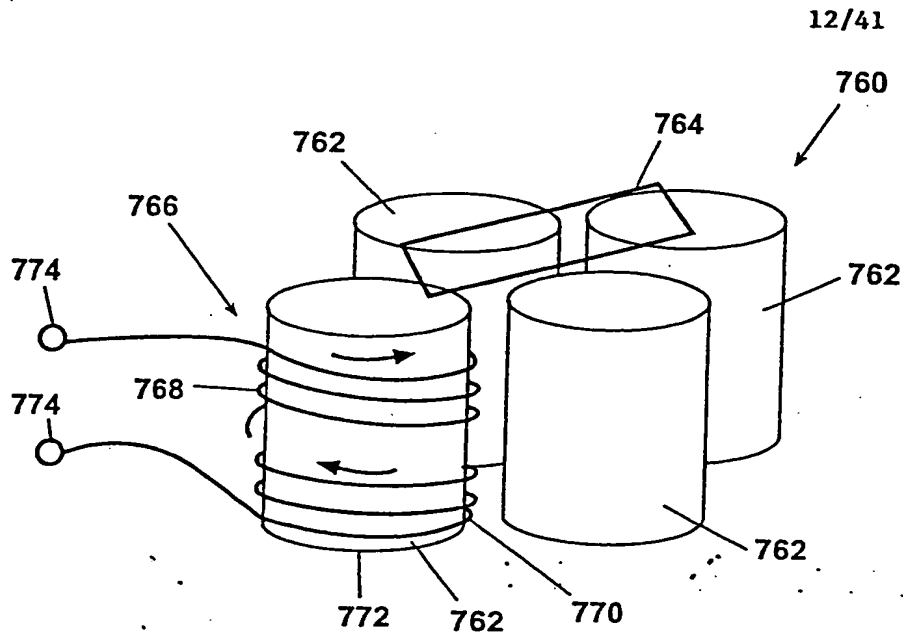


Fig. 24



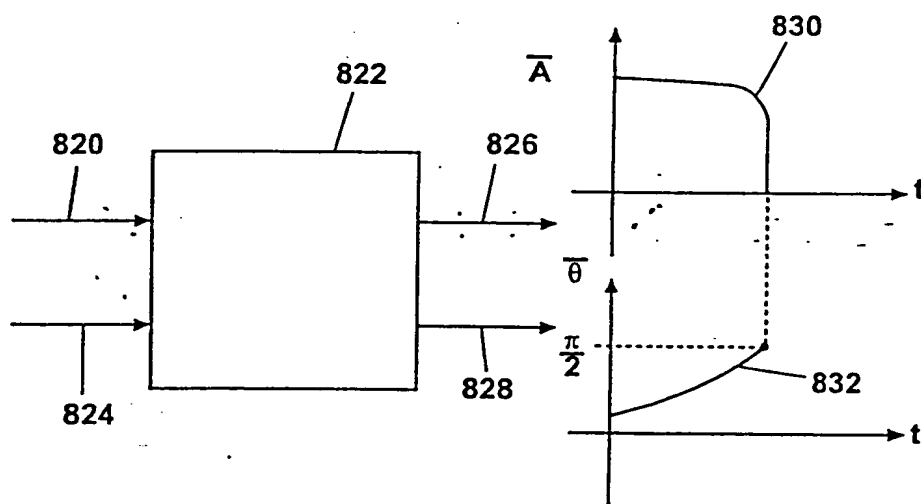


Fig. 27

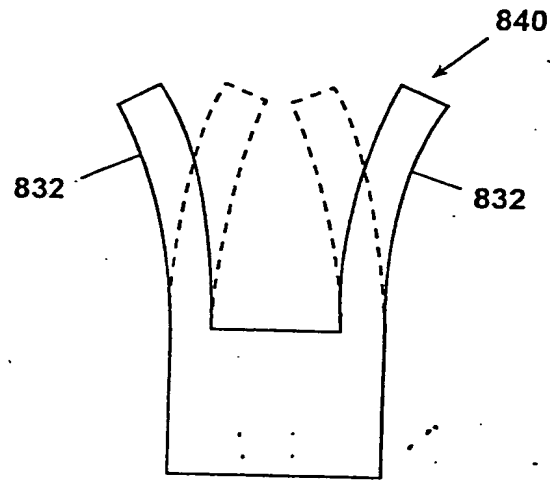


Fig. 28

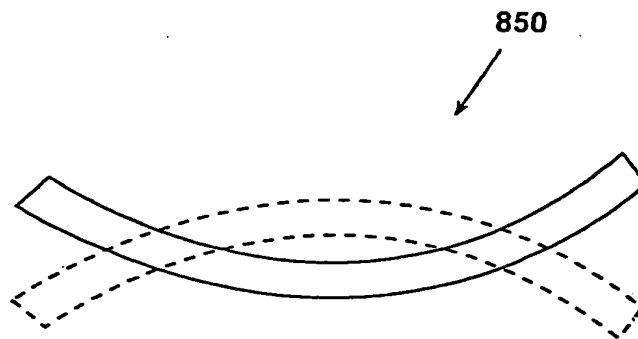


Fig. 29

15/41  
870

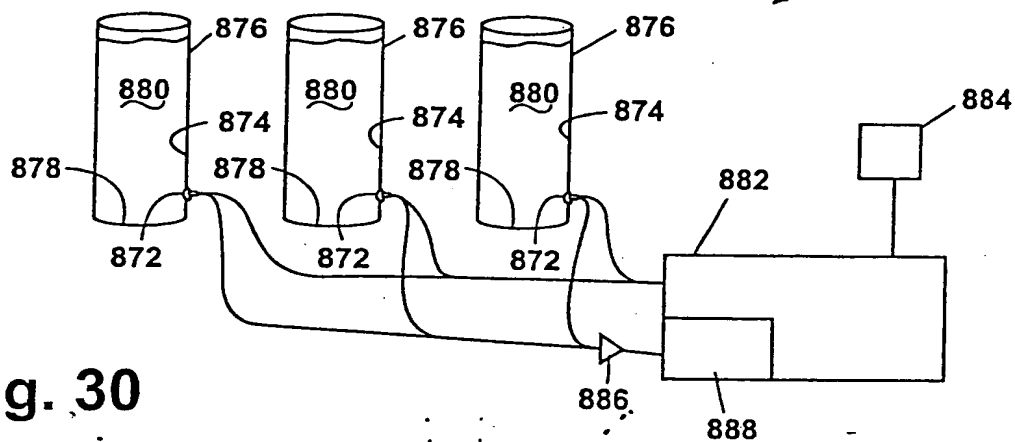


Fig. 30

910

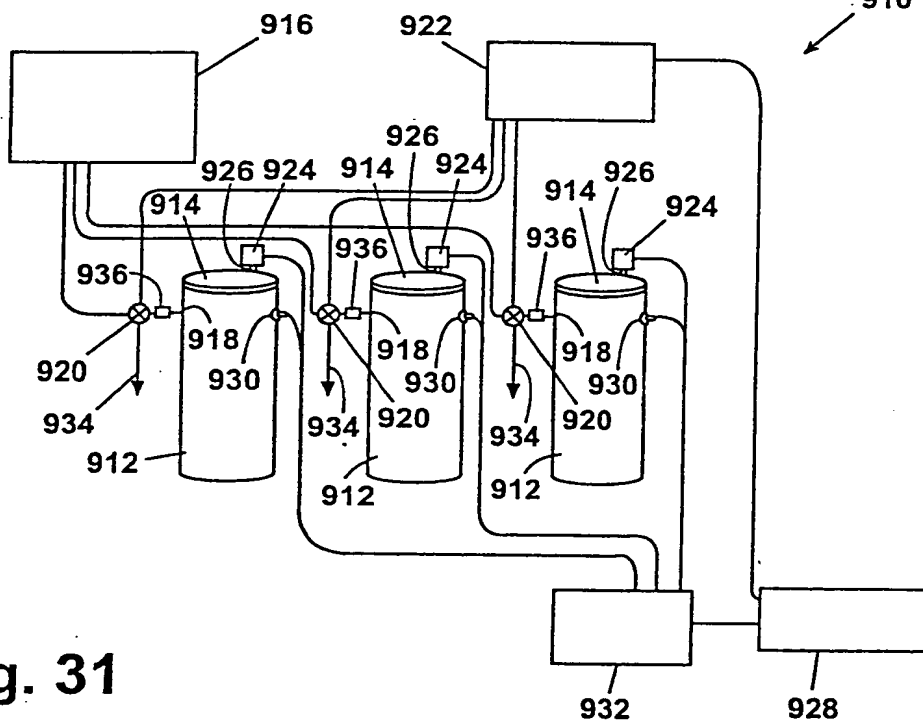


Fig. 31

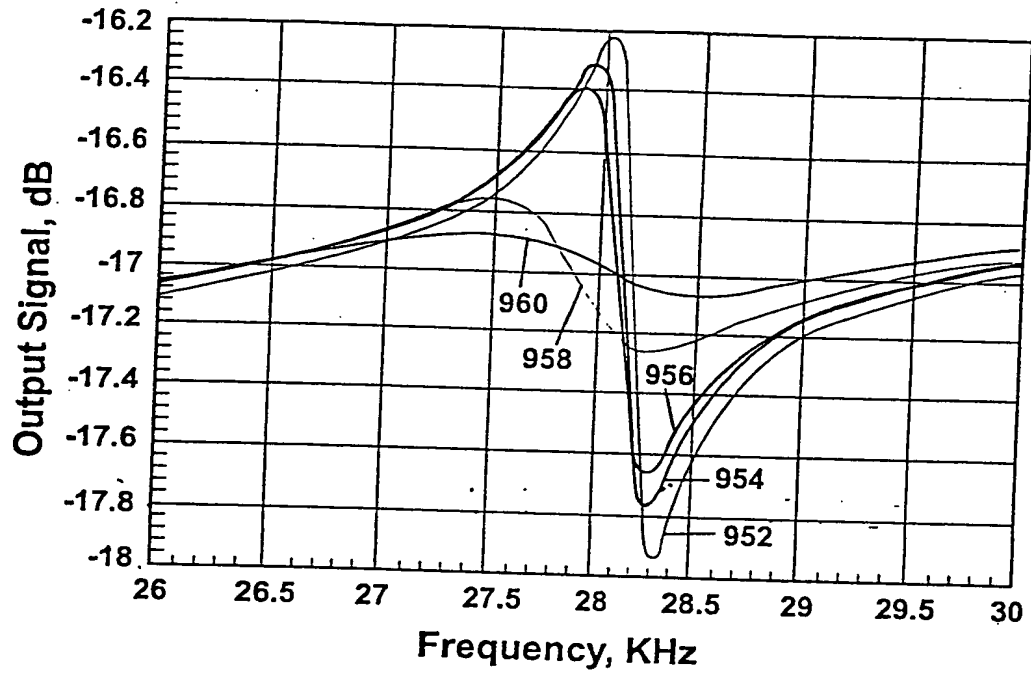


Fig. 32

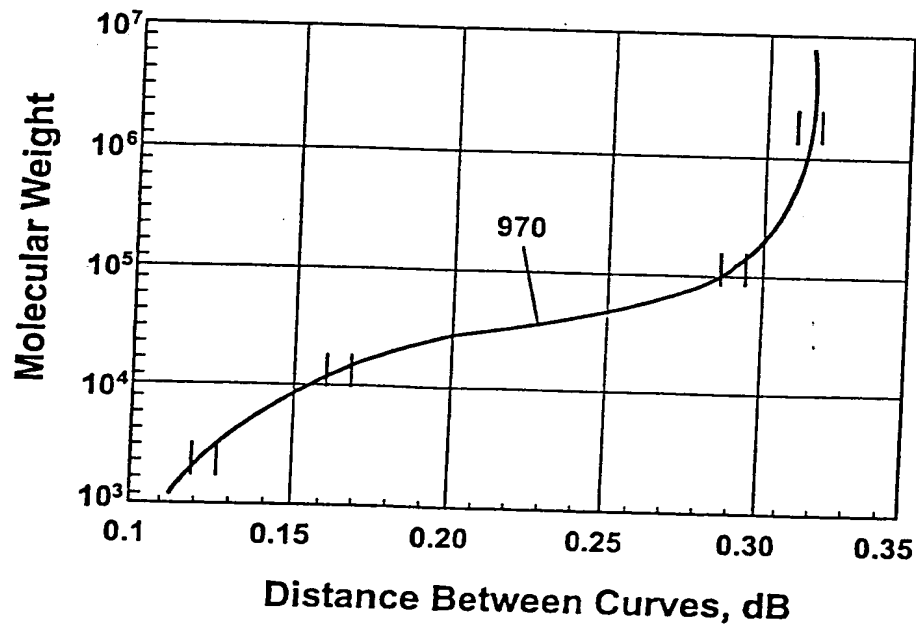


Fig. 33



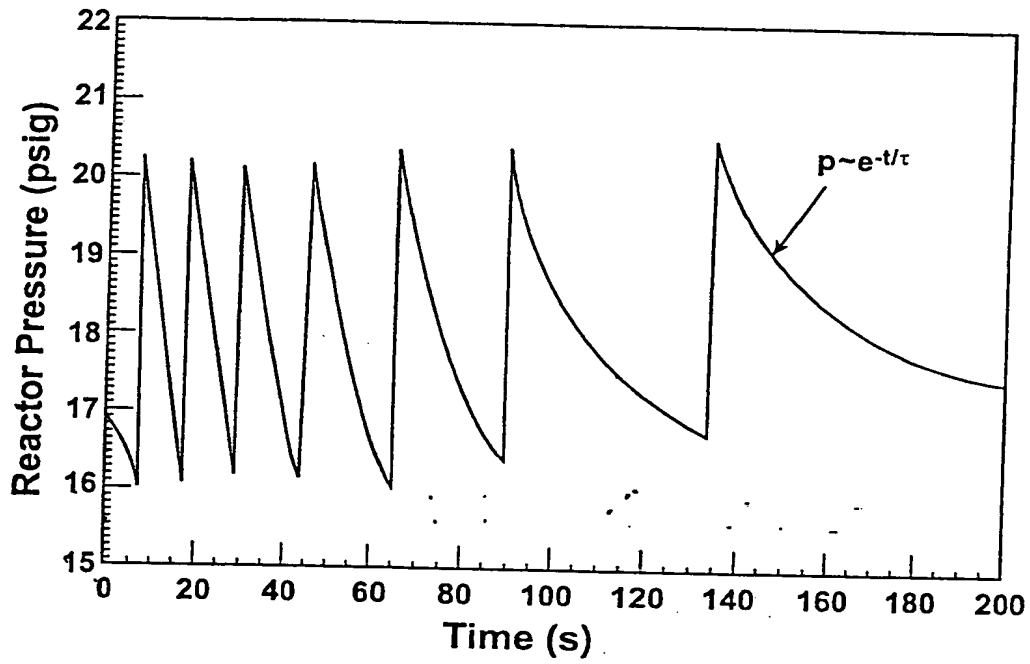


Fig. 34

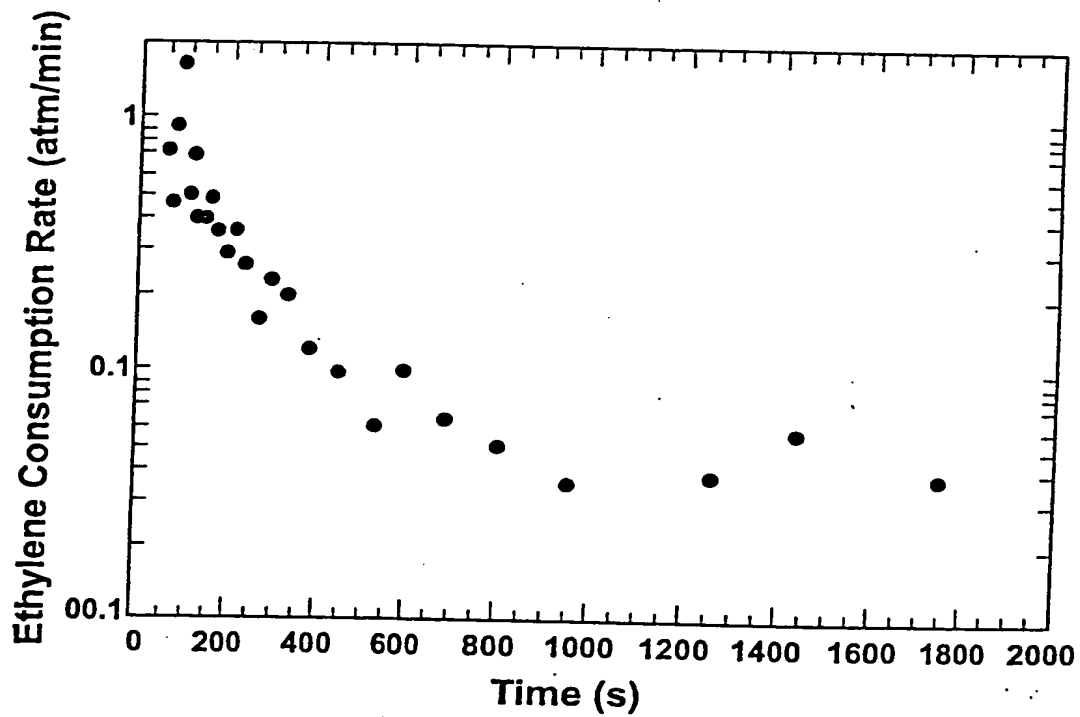


Fig. 35

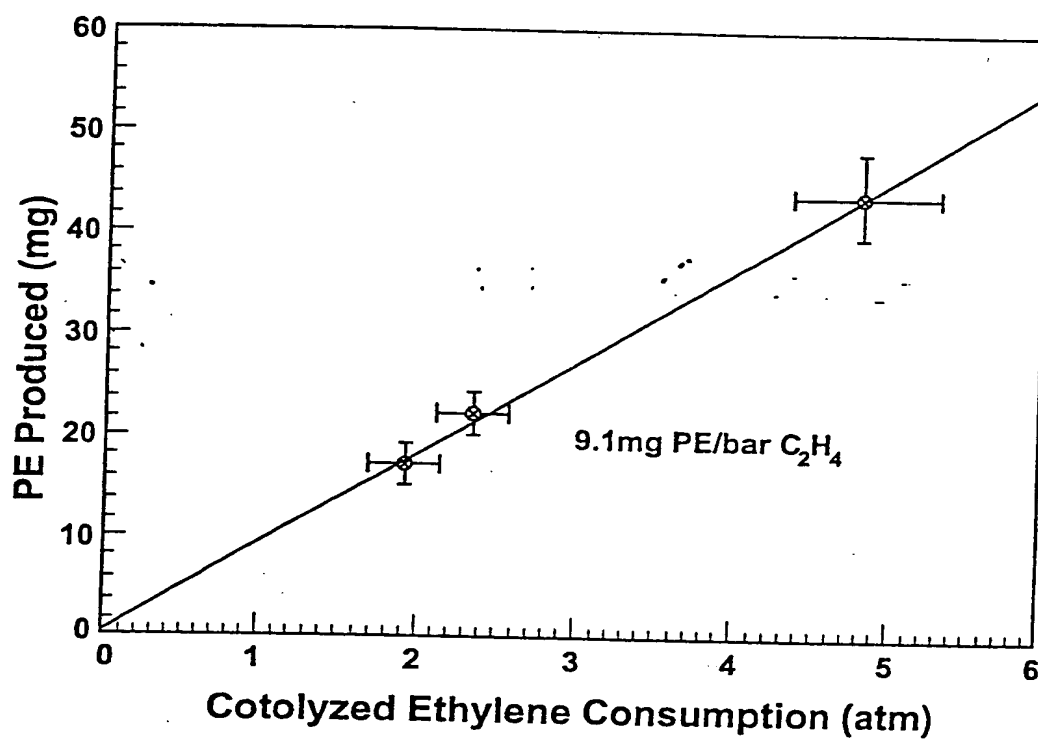


Fig. 36

19/41

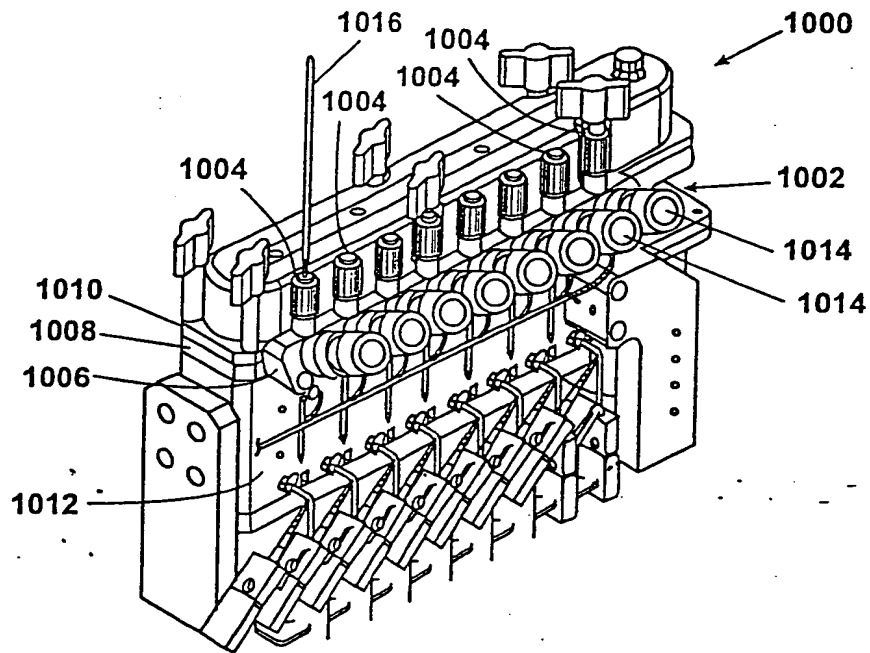


Fig. 37

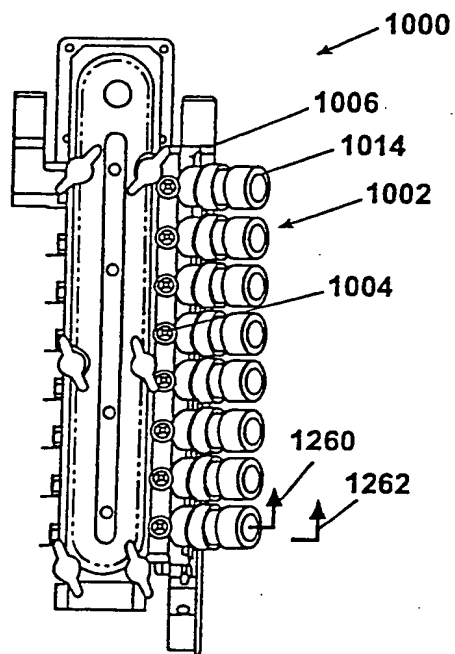


Fig. 46



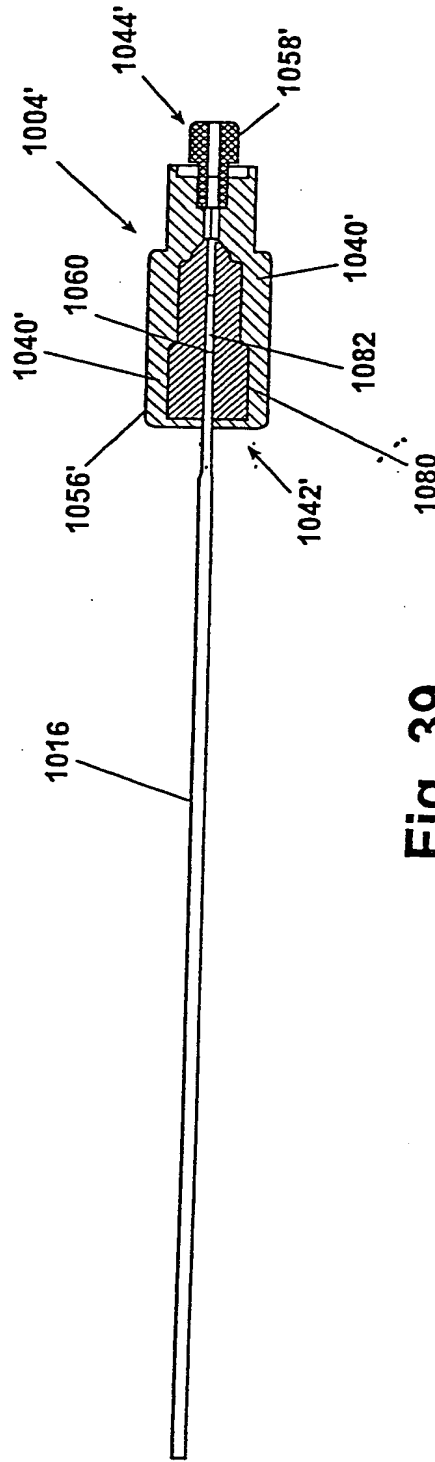


Fig. 39

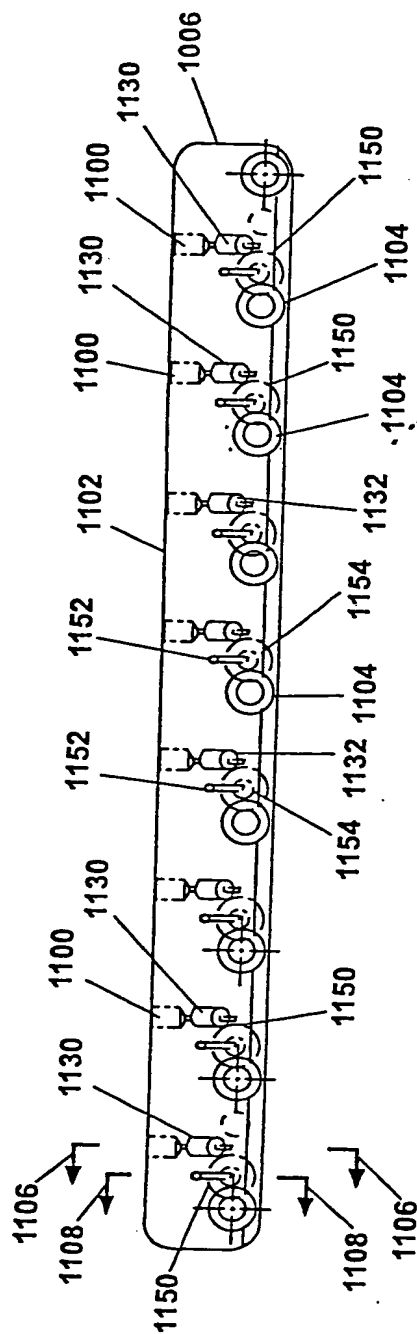
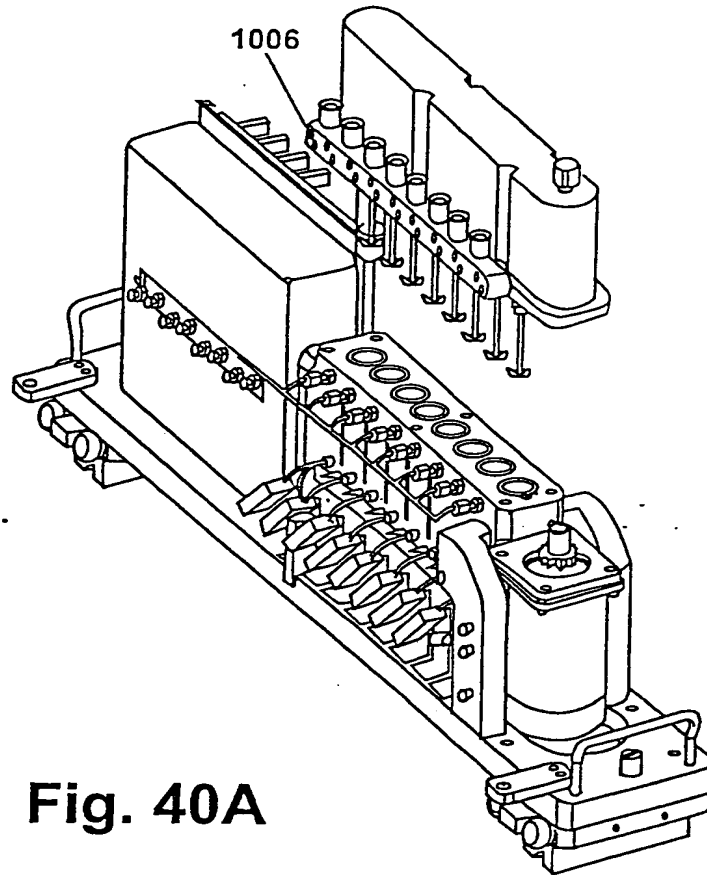
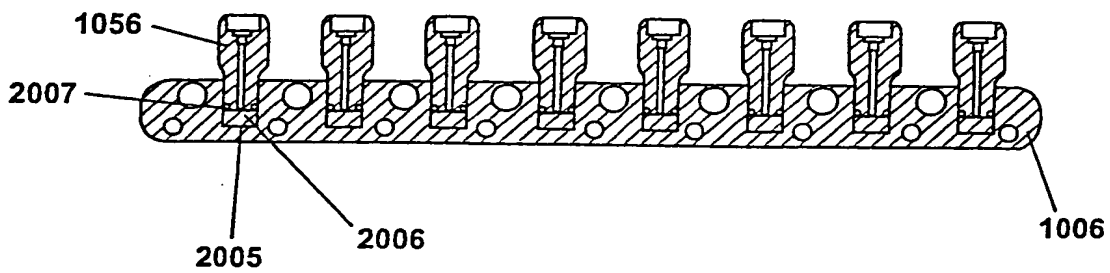


Fig. 40



**Fig. 40A**



**Fig. 40B**

Fig. 41

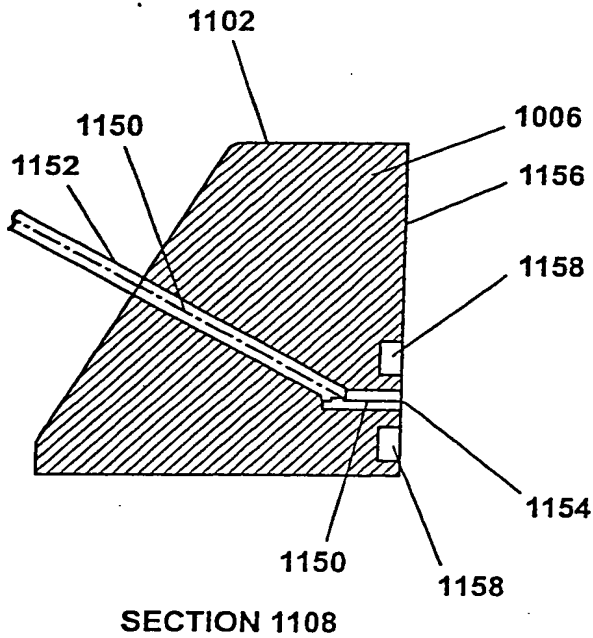
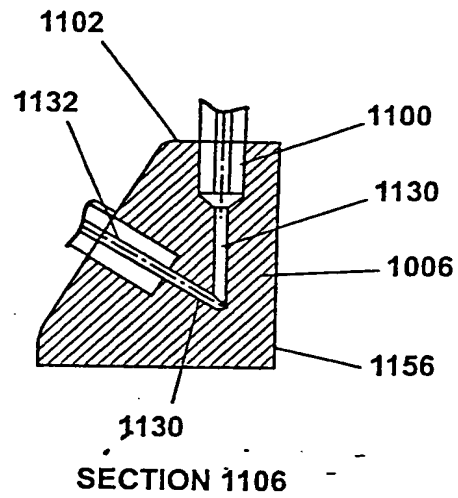


Fig. 42



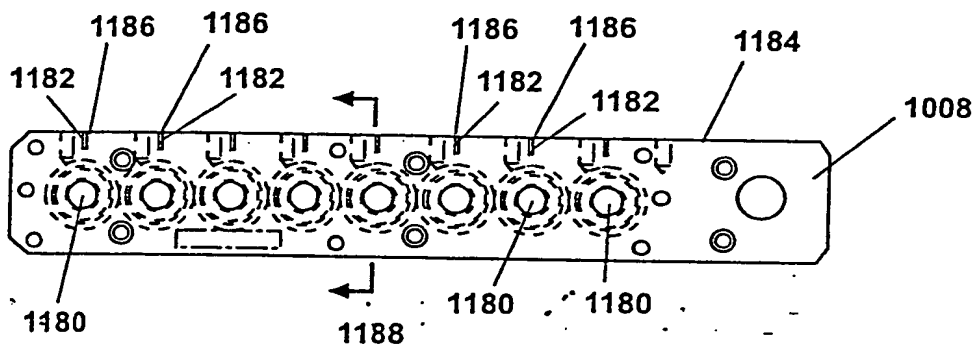


Fig. 43

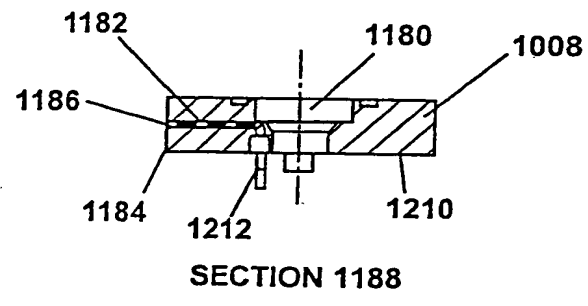
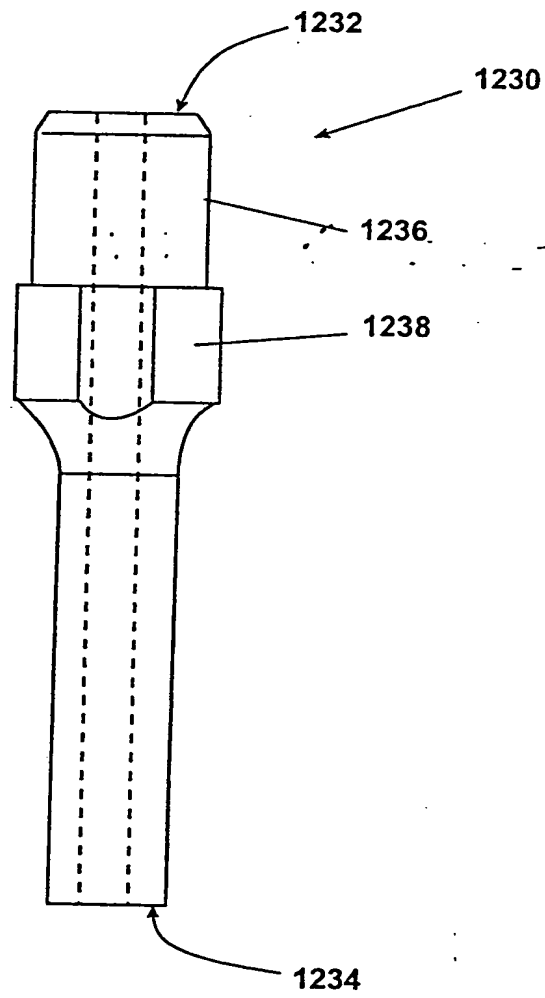


Fig. 44



**Fig. 45**

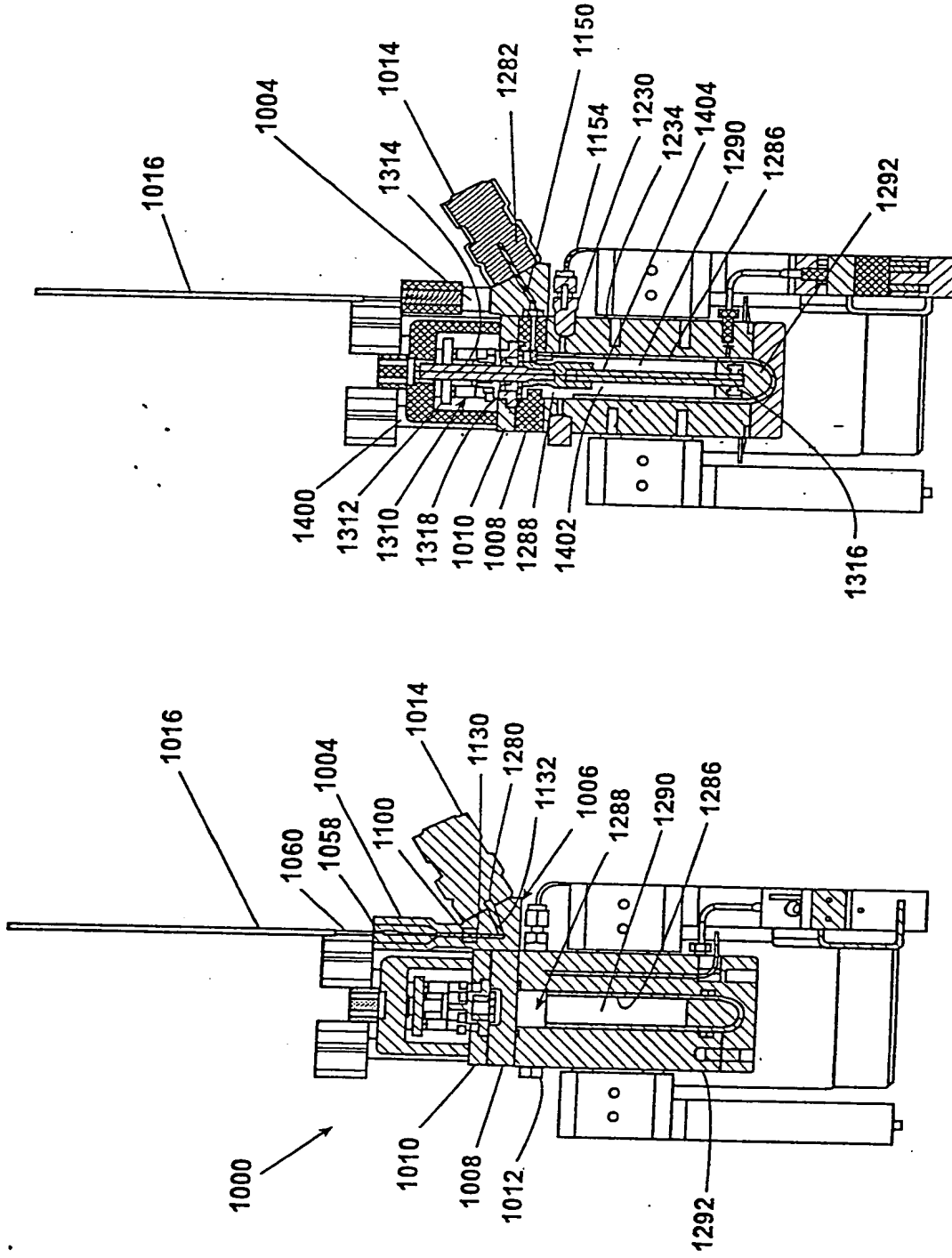


Fig. 47

Fig. 48

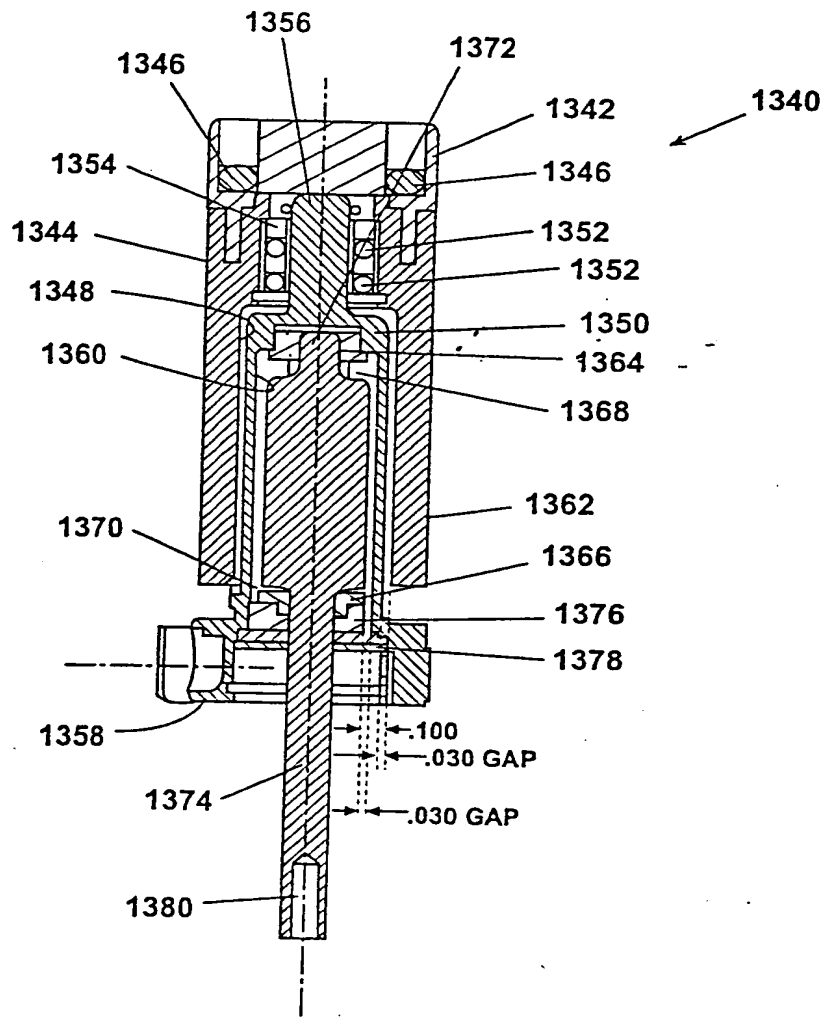


Fig. 49

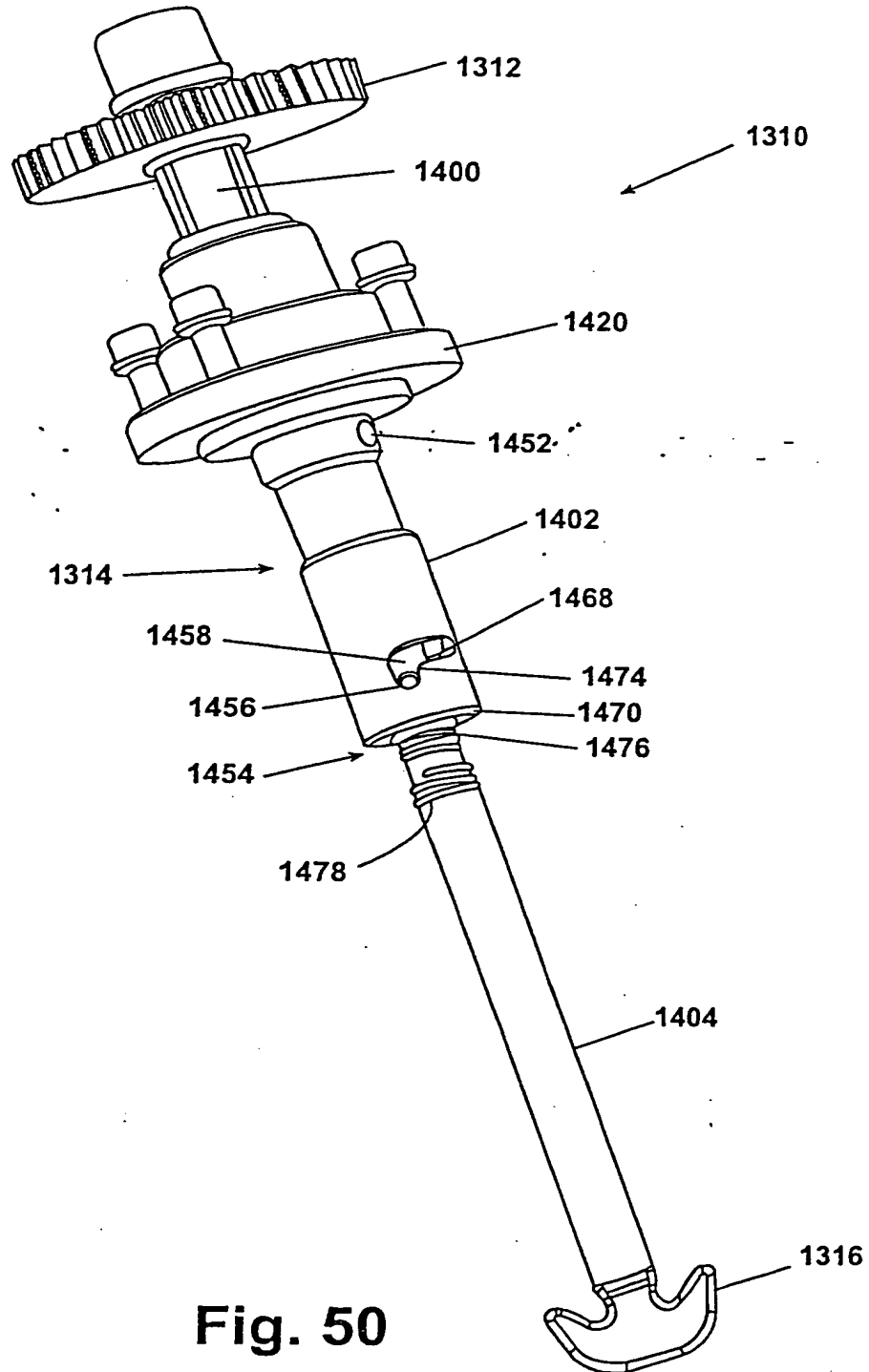


Fig. 50

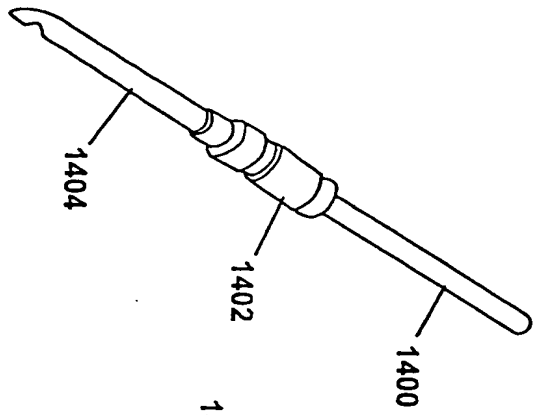


Fig. 50A

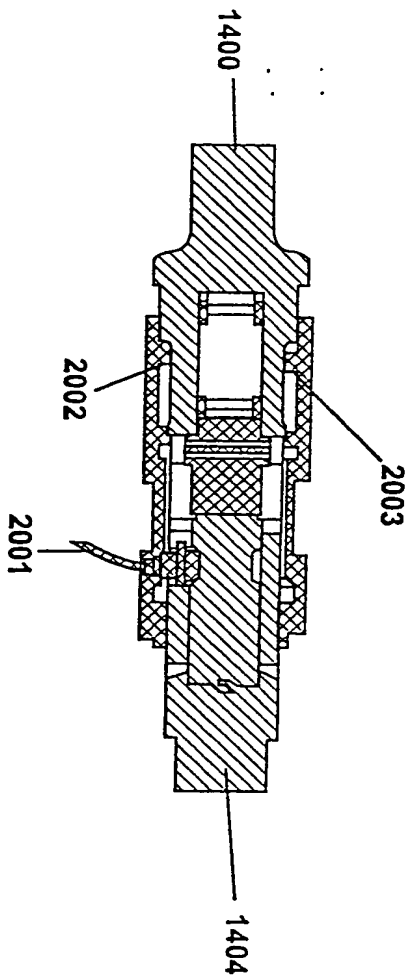
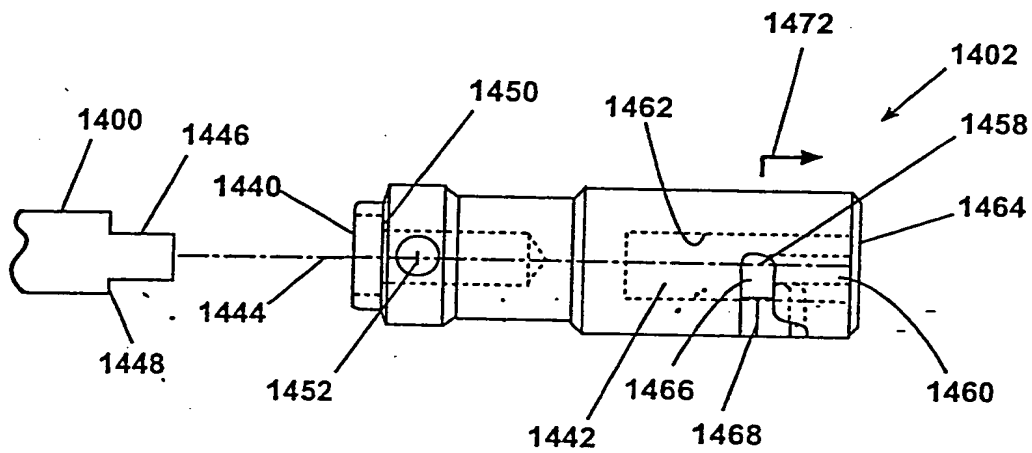
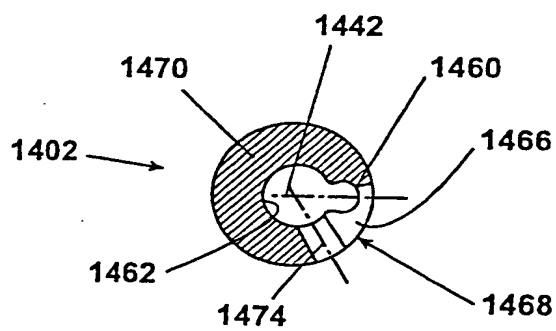


Fig. 50B



**Fig. 51**



**SECTION 1472**

**Fig. 52**

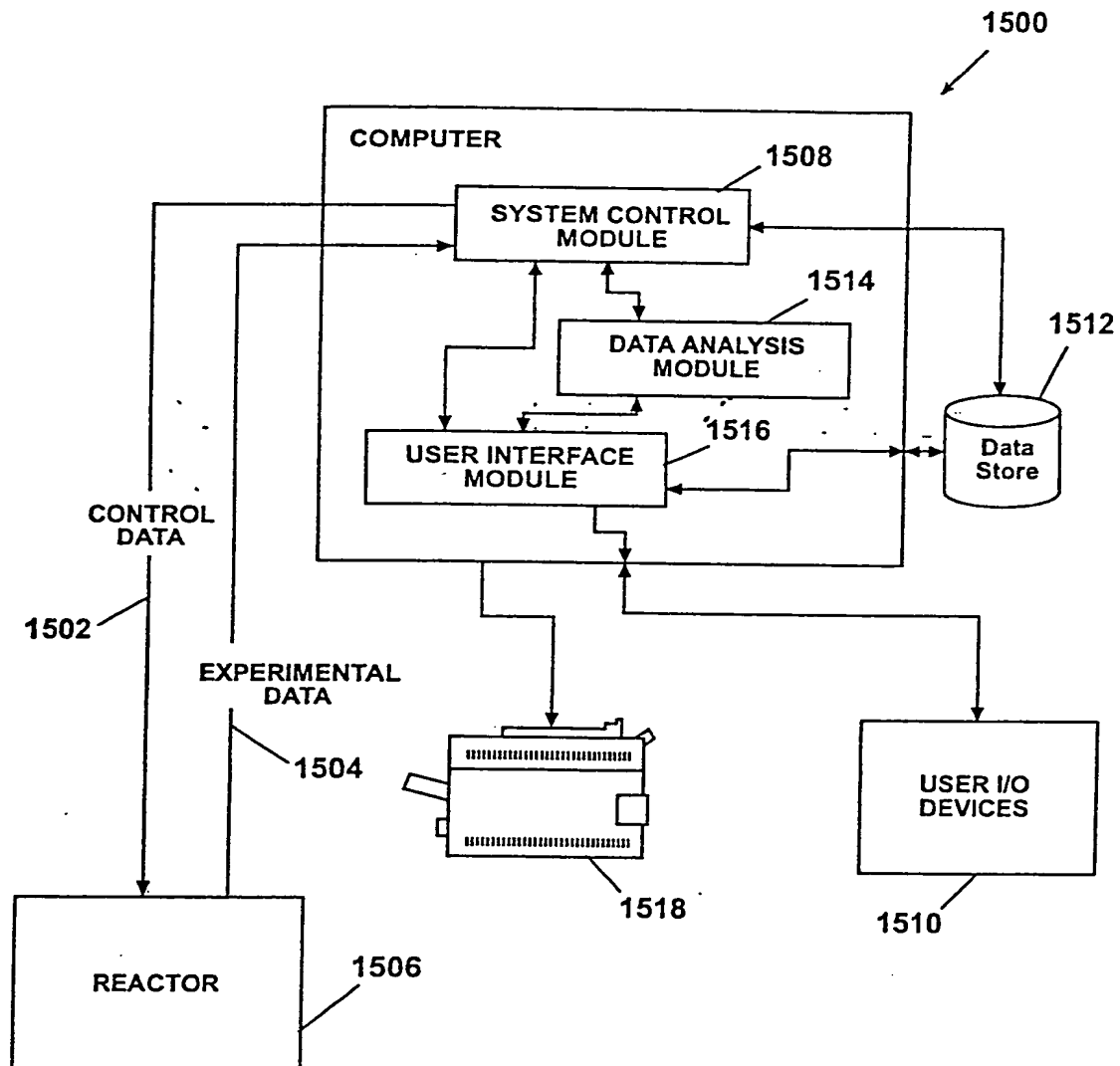


Fig. 53



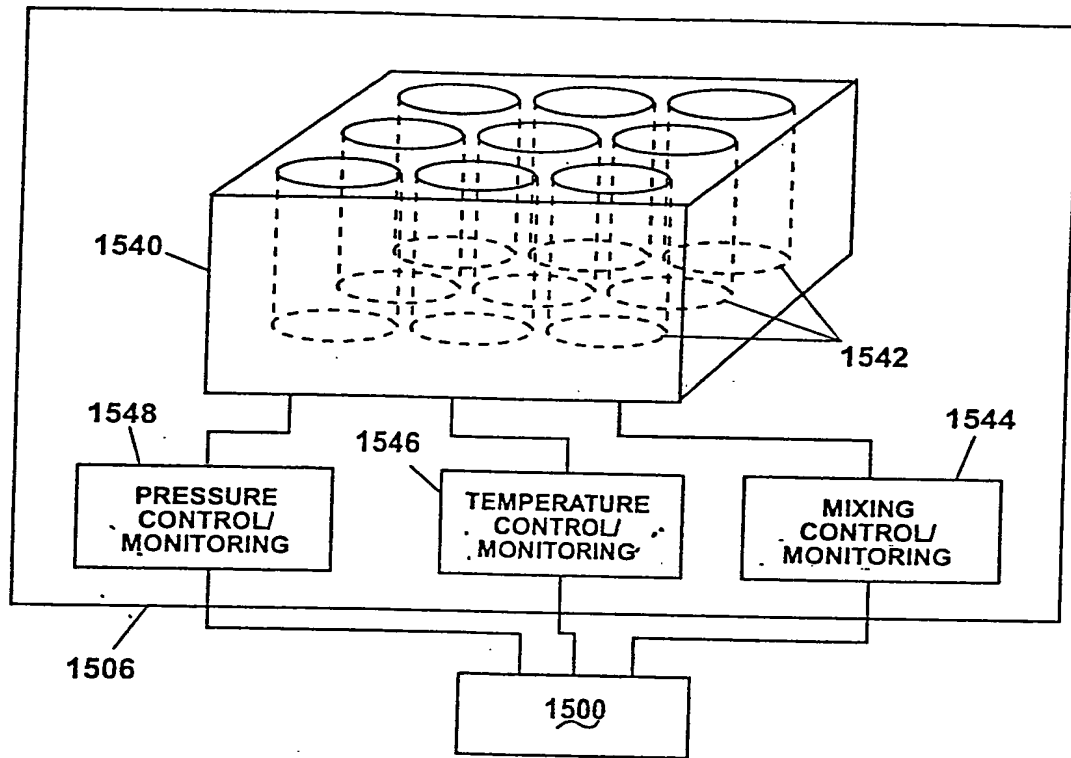


Fig. 54

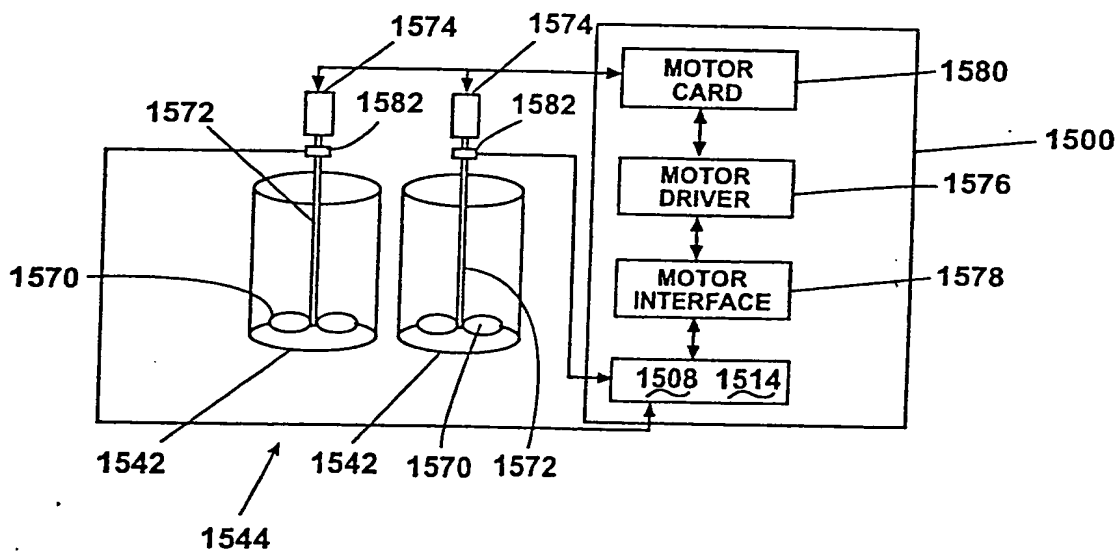
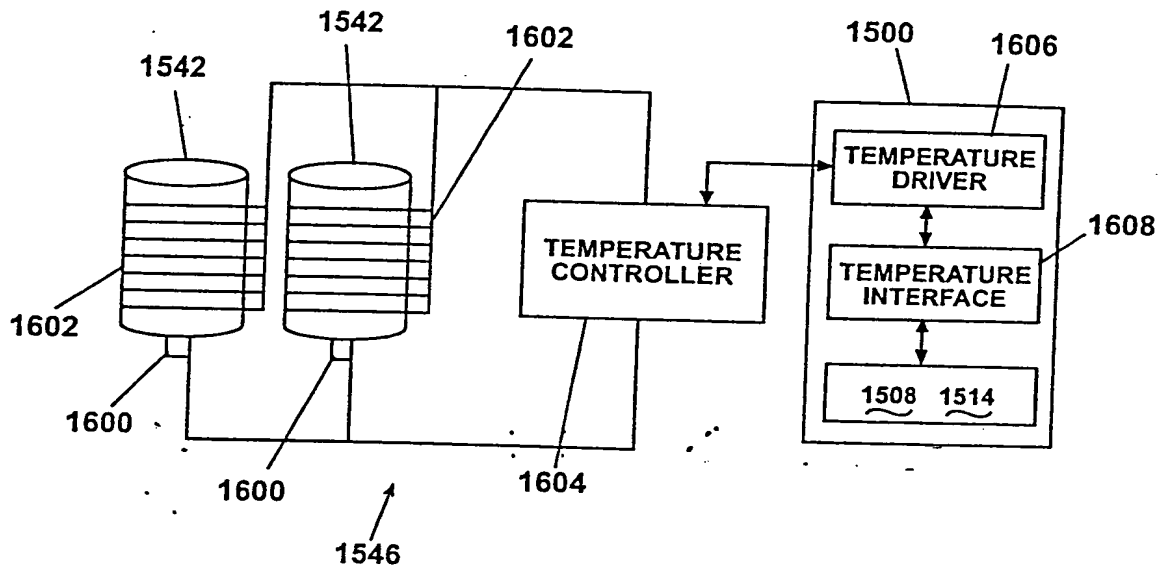
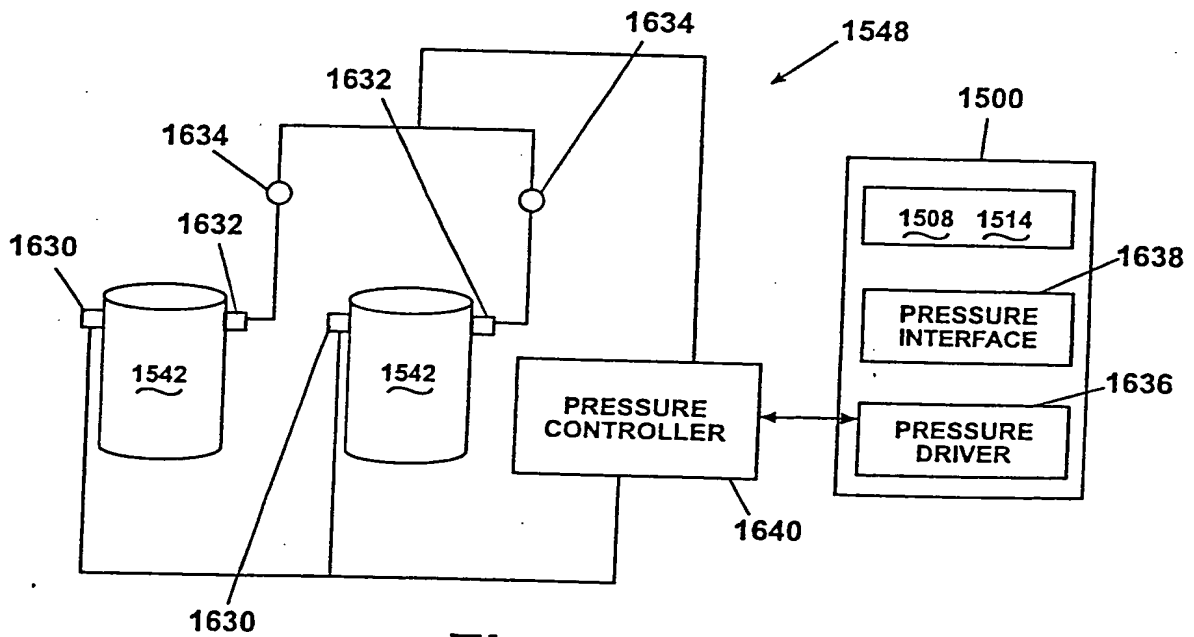
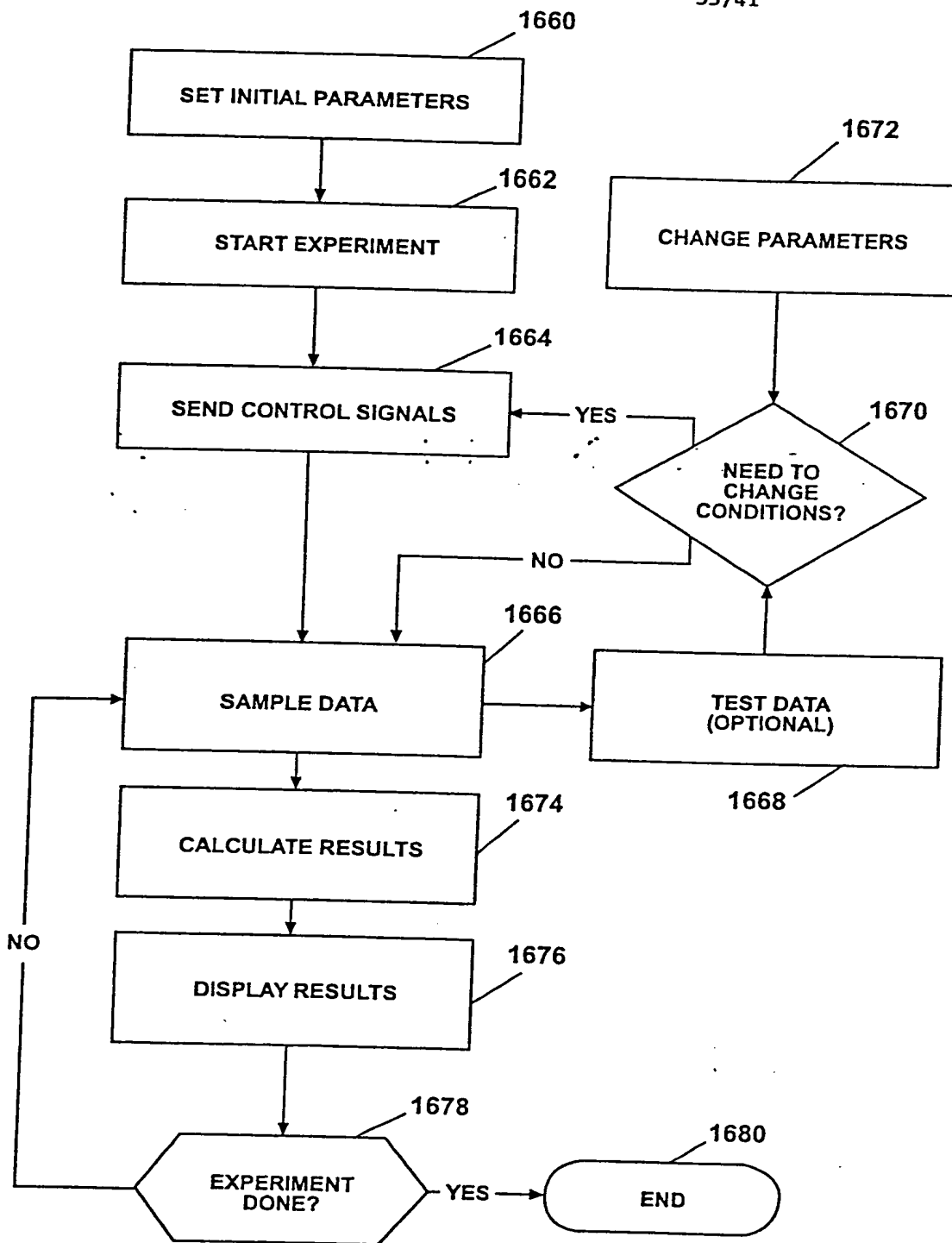


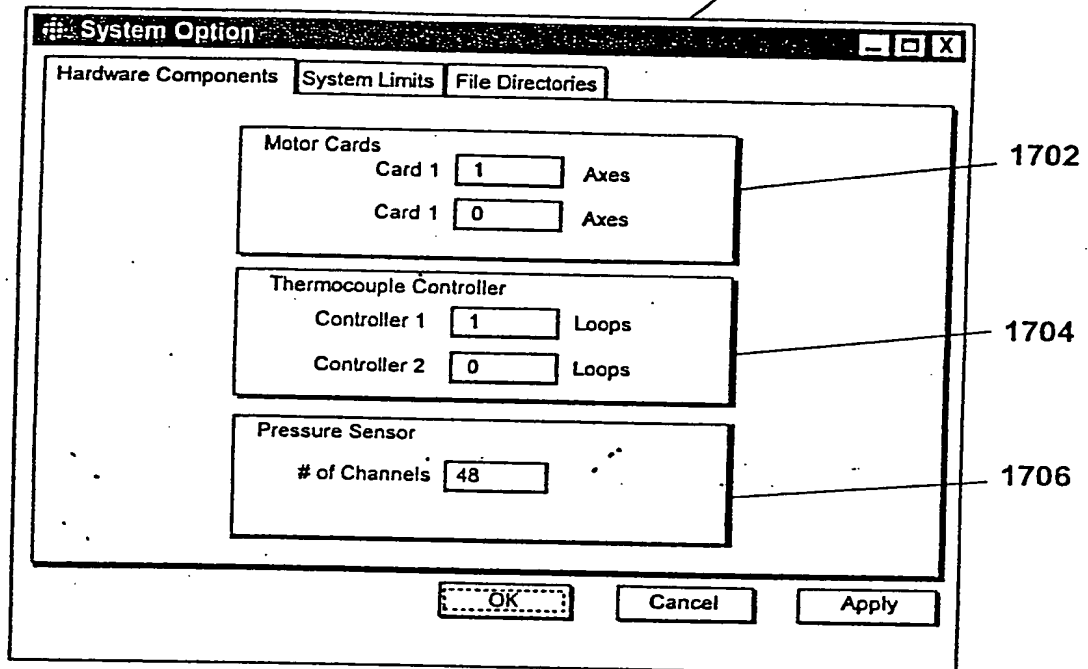
Fig. 55

**Fig. 56****Fig. 57**

**Fig. 58**

36/41

1700



The 'System Option' dialog box features three tabs: 'Hardware Components', 'System Limits', and 'File Directories'. The 'Hardware Components' tab is active, showing three sections: 'Motor Cards', 'Thermocouple Controller', and 'Pressure Sensor'. The 'Motor Cards' section contains two rows, each with a 'Card' label, a numeric input field (values 1 and 0), and an 'Axes' label. The 'Thermocouple Controller' section contains two rows, each with a 'Controller' label, a numeric input field (values 1 and 0), and a 'Loops' label. The 'Pressure Sensor' section contains a '# of Channels' label and a numeric input field with the value 48. At the bottom are 'OK', 'Cancel', and 'Apply' buttons. Reference numerals 1702, 1704, and 1706 point to the Motor Cards, Thermocouple Controller, and Pressure Sensor sections respectively.

Motor Cards		
Card 1	1	Axes
Card 1	0	Axes

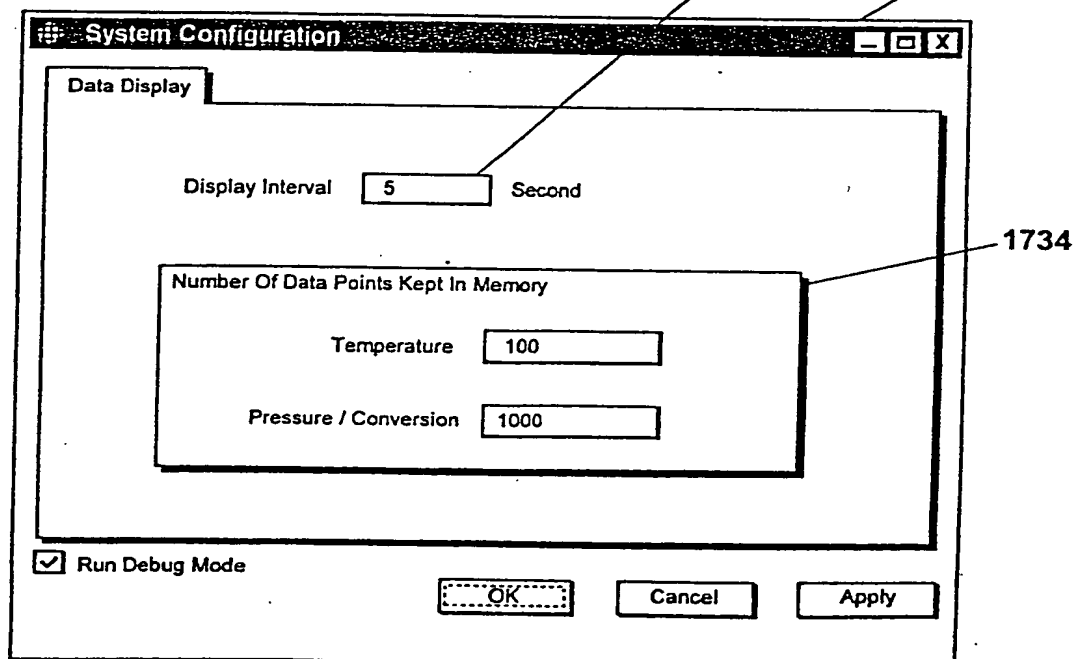
Thermocouple Controller		
Controller 1	1	Loops
Controller 2	0	Loops

Pressure Sensor	
# of Channels	48

Fig. 59

1732

1730



The 'System Configuration' dialog box has a 'Data Display' tab. It contains a 'Display Interval' label, a numeric input field with the value 5, and a 'Second' label. Below this is a 'Number Of Data Points Kept In Memory' section with two rows: 'Temperature' with a value of 100, and 'Pressure / Conversion' with a value of 1000. At the bottom is a checked checkbox for 'Run Debug Mode' and 'OK', 'Cancel', and 'Apply' buttons. Reference numerals 1732, 1730, and 1734 point to the Display Interval, the Number Of Data Points Kept In Memory section, and the Temperature input field respectively.

Data Display	
Display Interval	5 Second

Number Of Data Points Kept In Memory	
Temperature	100
Pressure / Conversion	1000

☒ Run Debug Mode

Fig. 60

1760

1762

1764

1774

1776

1768

1770

1772

**Reactor Setup**

Motor  
Speed  RPM  
Safety Limit (RPM): 3200  
☐ Single Direction  
☐ Dual Direction

Experiment Time  
 Minute

Heater  
Set Point  F  
Safety Limit: 392  
Turn Off Temp.  F  
Sample Rate  Hz  
Maximum (Hz): 0.1

Pressure  
P<sub>set</sub>  psi  
Safety Limit (psi): 100  
Sample Rate  Hz  
Maximum (Hz): 5

Gradient  
F  
Manual

Load Defaults  
Save As Defaults  
Apply  
Cancel

Fig. 61

1800

1802

1802

**Temperature**

Setpoints

1 2 3 4 5 6

200 200 200 200 200 200

Unit: F  
Safety Limit: 392 F

☐ Undo Gradient

OK Cancel

Fig. 62

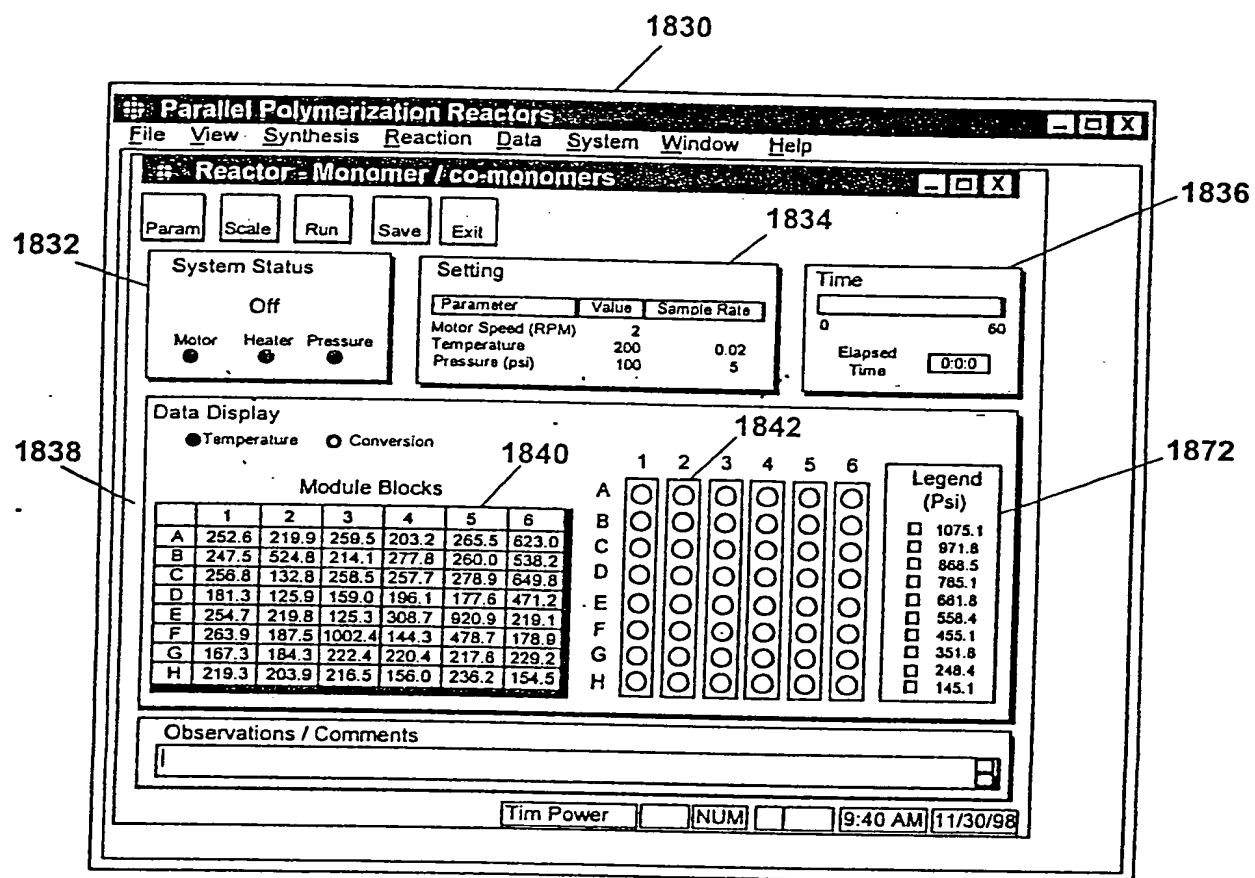


Fig. 63

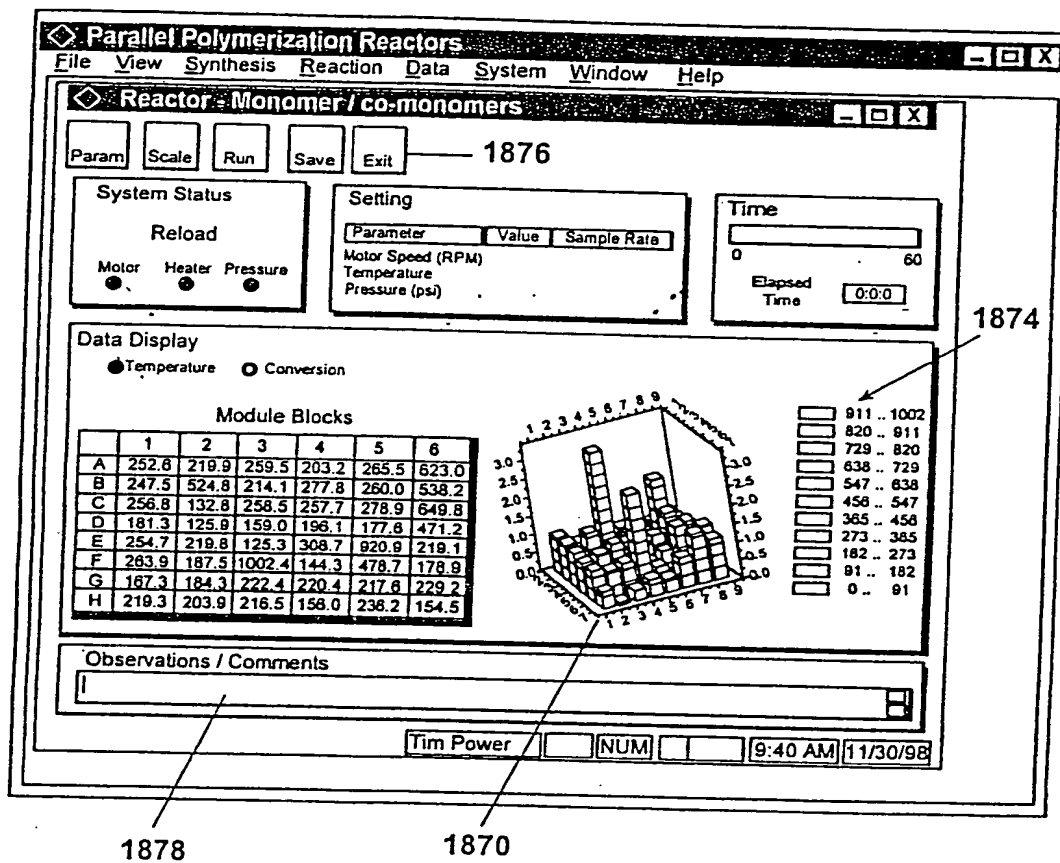
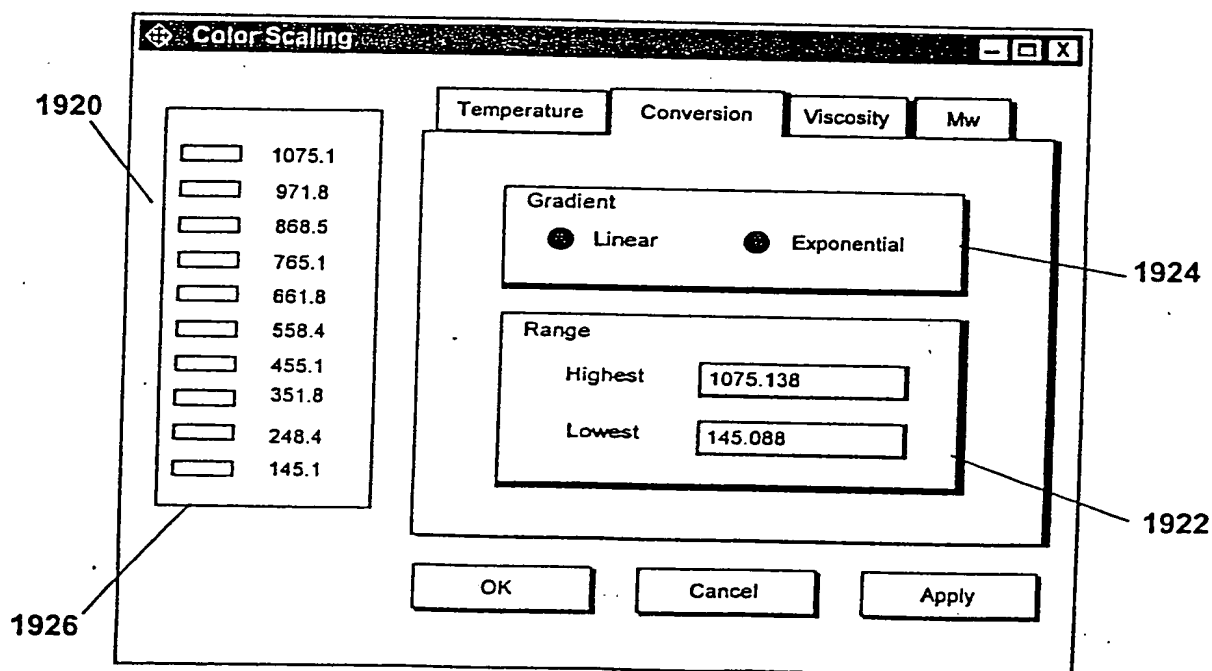


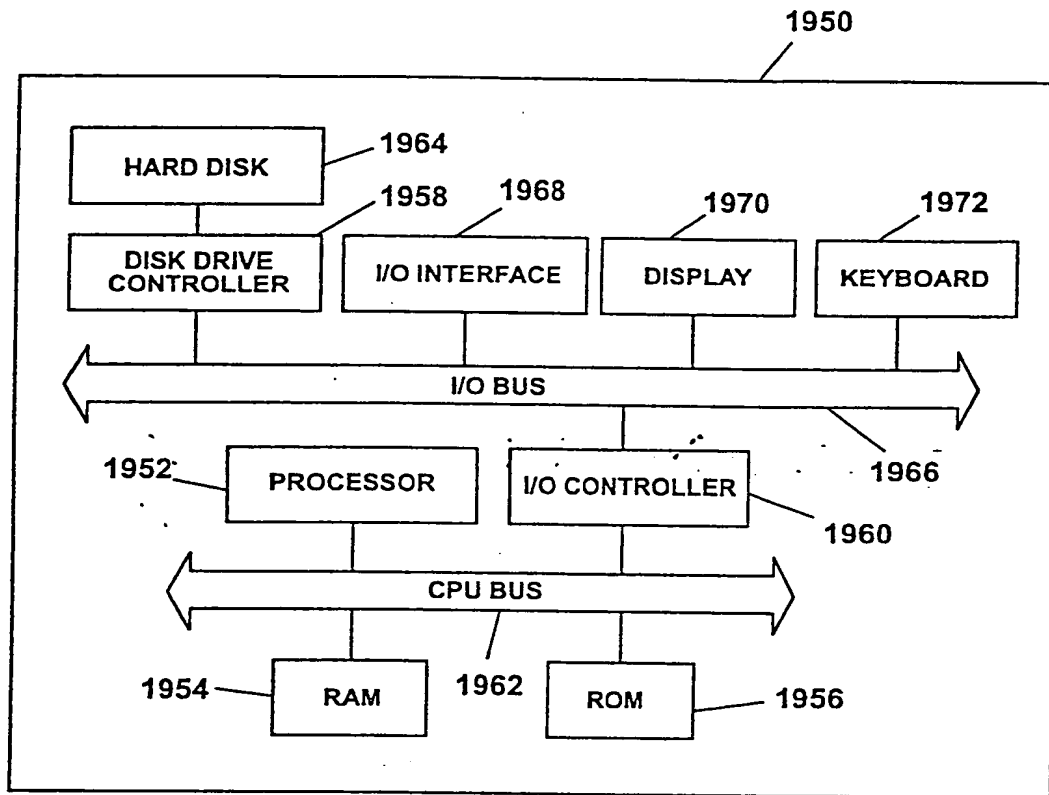
Fig. 64

**Fig. 65**



**Fig. 66**



**Fig. 67**